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FORMING A COMPLETE RECORD OF THE PROCEEDINGS OF ALL PUBLIC COMPANIES.

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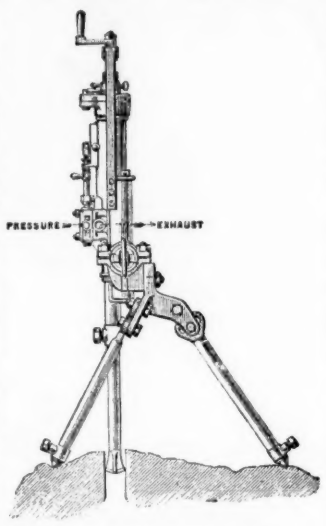

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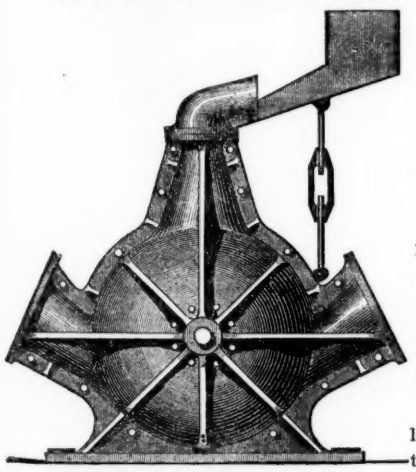

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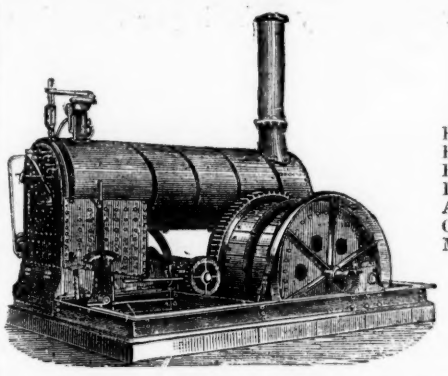

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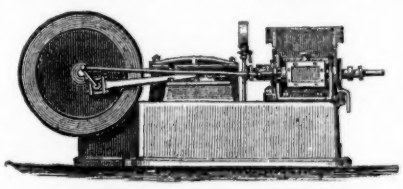

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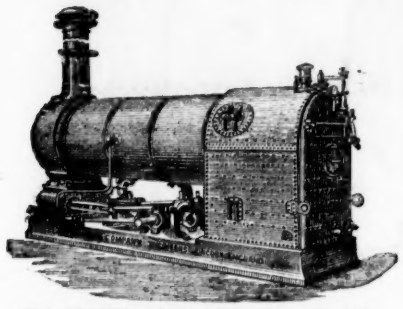

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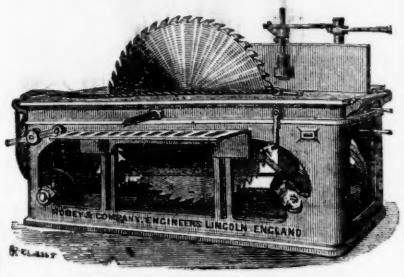

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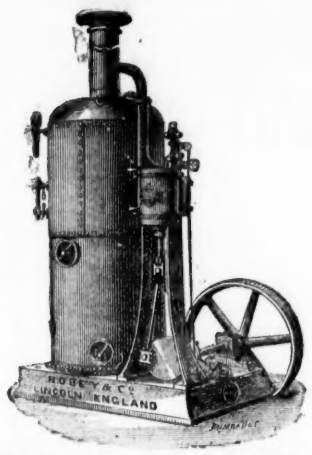

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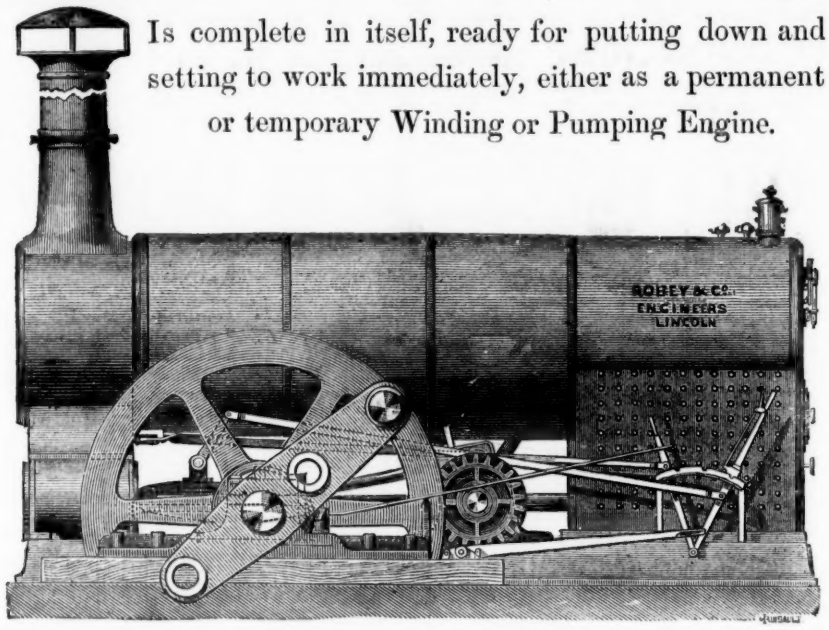

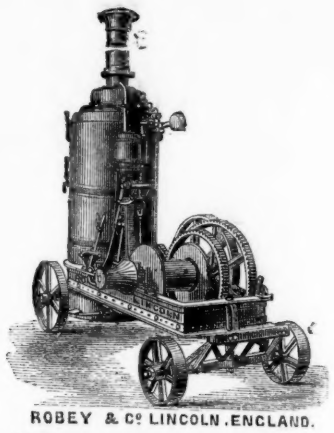

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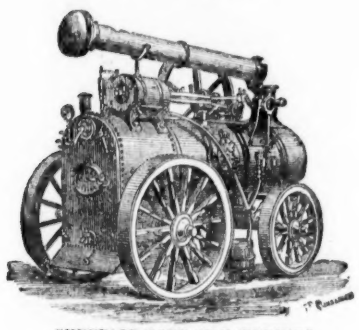

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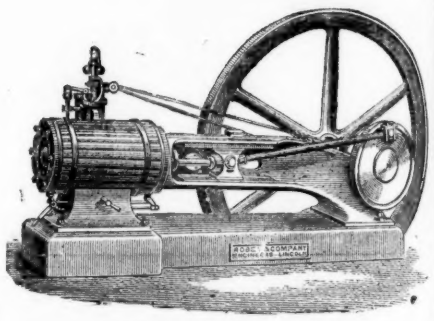

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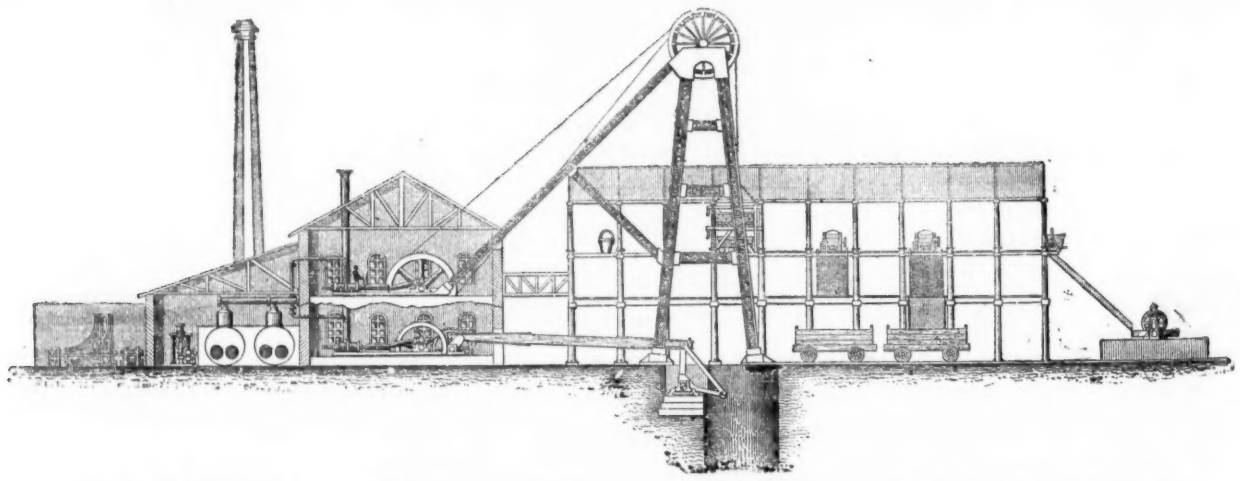

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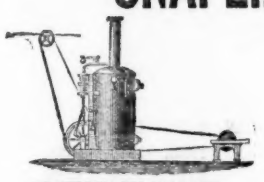
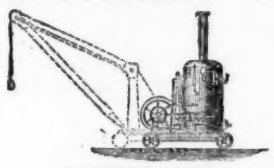


STATIONARY ENGINE. No Building required.



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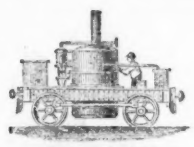

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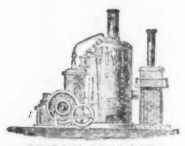

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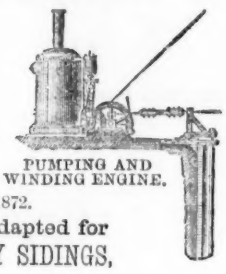

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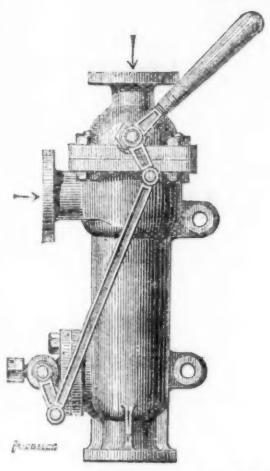

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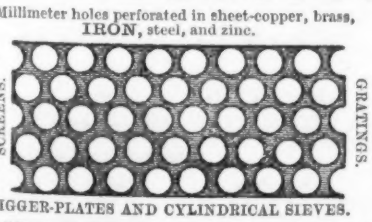

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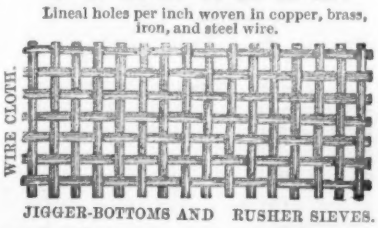

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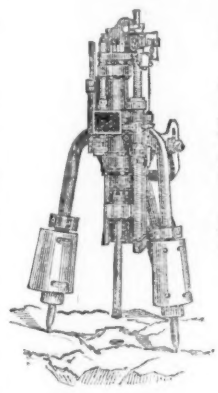

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At the south end of the St. Gothard Tunnel, where

THE McKEAN ROCK DRILLS

Are exclusively used, the advance made during eight consecutive weeks, ending February 7, was 24·90, 27·60, 24·80, 26·10, 28·30, 27·10, 28·40, 28·70 metres. Total advance of south heading during January was 121·30 metres, or 133 yards.

In a series of comparative trials made at the St. Gothard Tunnel, the McKean Rock Drill continued to work until the pressure was reduced to one-half atmosphere (7½ lbs.), showing almost the entire motive force to be available for the blow against the rock—a result of itself indicating many advantages.

The GREAT WESTERN RAILWAY has adopted these Machines for the SEVERN TUNNEL; the LONDON AND NORTH-WESTERN RAILWAY for the FESTINIOG TUNNEL: and the BRITISH GOVERNMENT for several Public Works. A considerable number of Mining Companies are now using them. Shafts and Galleries are driven at from three to six times the speed of hand labour, according to the size and number of machines employed, and with important saving in cost. The ratio of advantage over hand labour is greatest where the rock is hardest.

These Machines possess many advantages, which give them value unapproached by any other system of Boring Machine.

THE McKEAN ROCK DRILL IS ATTAINING GENERAL USE THROUGHOUT THE WORLD FOR MINING, TUNNELLING, QUARRYING, AND SUB-MARINE BORING.

The McKEAN ROCK DRILLS are the most powerful—the most portable—the most durable—the most compact—of the best mechanical device. They contain the fewest parts—have no weak parts—act without SHOCK upon any of the operating parts—work with a lower pressure than any other Rock Drill—may be worked at a higher pressure than any other—may be run with safety to FIFTEEN HUNDRED STROKES PER MINUTE—do not require a mechanic to work them—are the smallest, shortest, and lightest of all machines—will give the longest feed without change of tool—work with long or short stroke at pleasure of operator.

The SAME Machine may be used for sinking, drifting, or open work. Their working parts are best protected against and accidents. The various methods of mounting them are the most efficient.

N.B.—Correspondents should state particulars as to character of work in hand in writing us for information, on receipt of which a special definite answer, with reference to our full illustrated catalogue, will be sent.

PORTABLE BOILERS, AIR COMPRESSORS, BORING STEEL, IRON, AND FLEXIBLE TUBING.

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By a special method of preparation this leather is made solid, perfectly close in texture and impermeable to water; it has, therefore, all the qualifications essential for pump buckets, and is the most durable material of which they can be made. It may be had of all dealers in leather, and of—

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LEATHER MILL BAND AND HOSE PIPE MANUFACTURERS

LONG LANE, SOUTHWARK LONDON

Prize Medals, 1851, 1855, 18 for

MILL BANDS, HOSE, AND LEATHER FOR MACHINERY PURPOSES.

THE UNDERSIGNED, having secured the Grants of several VALUABLE MINERAL PROPERTIES (TIN AND COPPER), in the St. Blazey District, in the vicinity of Fowey Consols, &c., is DESIROUS of OBTAINING the CO-OPERATION of CAPITALISTS for their EXPLORATION. There is little or no risk involved in the undertakings, and the capital required in each case is very limited. R. SYMONS

11, Parade, Truro, 3rd February, 1881.

MAP OF CALLINGTON, CALSTOCK, AND TAVISTOCK MINING DISTRICTS.

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February 3rd 1881.

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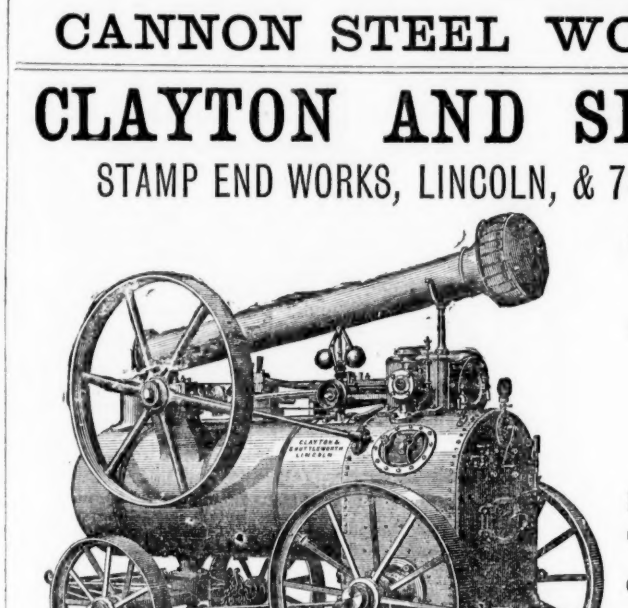

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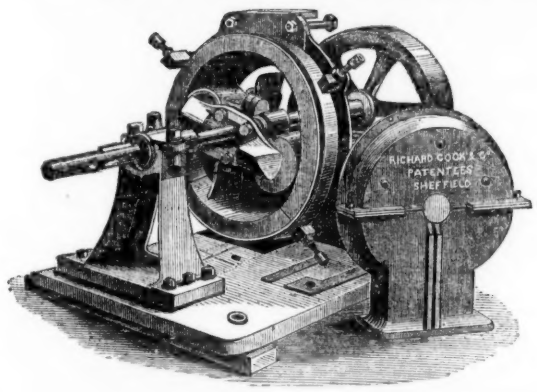

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This mill consists of a circular iron casing, the section being elliptical in form, and is fixed vertically on a firm bed or foundation plate, a shaft runs through the centre of the casing on which is keyed a series of arms, in the extremities of which revolve two or more slightly oblong iron rollers, which, when put in motion, fly off from the centre and run upon the interior periphery of the casing, and by centrifugal force crush and pulverise the article under treatment.

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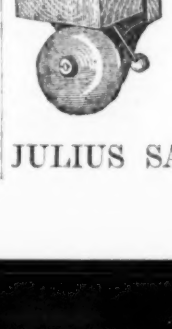

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JULIUS SAX (ESTD. 1850), 108, GREAT RUSSELL STREET, LONDON, W.C.

Original Correspondence.

THE MINING INDUSTRY OF COLORADO.

The rapid growth of Colorado as a mining State has been referred to almost weekly in the *Mining Journal* for some time past, yet few will be prepared for the marvellous figures obtained by a comparison with the neighbouring States, rapid though their growth has been. During the past ten years the population of California has increased 54 per cent., Nevada 46 per cent., and other States in large proportions; but Colorado shows the enormous increase of 387 per cent.—that is to say, the inhabitants are fourfold as numerous as they were ten years since. This increase, it may be said, is entirely due to its marvellous mineral wealth. Several Colorado mines have already made some reputation in this country, but this is only recently, and the amount of dividends paid has been comparatively small; but Prof. J. Alden Smith, the State Geologist of Colorado, refers to a mine there of whose very existence the public is ignorant, which yielded a net profit of $22,500 out of a gross product of only $25,000, and he remarks that there are dozens of mines in Colorado which have paid dividends of from 30 to 60 per cent. annually for from five to twelve years consecutively, of which the general public has heard absolutely nothing. It is now proposed to bring the mineral resources of the State prominently forward, and it is not doubted that the result will be satisfactory to those concerned, and that within a short time projects for acquiring and developing mining properties in Colorado will be as numerous as are the Indian gold mining properties at the present time.

There are probably few more practical authorities on the origin and classification of the ore deposits of the Western States than Prof. J. S. Newberry, of the Columbia College School of Mines, New York, and his various reports are beyond question of a highly interesting character. He remarks that the mineral matters which have proved useful to man form three categories—the earthy, as gypsum, clay, marble; the carbonaceous, as coal, lignite, petroleum; and the metallic, as iron, gold, silver. He explains that the metals occur rarely native, oftener as ores, that is combined with sulphur, silica, carbonic acid, &c., and then form a series of deposits of which the physical and chemical characters and history differ widely. They may be grouped as superficial deposits, stratified deposits, and unstratified deposits. Superficial deposits include the accumulation of gold, steam-tin, platinum, gems, &c., which are obtained from the surface material, gravel, sand, and clay, derived from the mechanical decomposition of rock masses, through which metals or ores were sparsely distributed. Superficial deposits have probably furnished nine-tenths of all the gold that has been obtained by man, the greater part of the tin, all the platinum, and all the gems, except the emerald, which in South America is mined. Stratified deposits may be subdivided into ore forming the entire strata; for example, beds of iron ore, ore disseminated through strata, as copper in the sandstones of Lake Superior; and segregated masses in strata, as balls, kidneys, and sheets of clay ironstone in the shales of the coal measures, and so on. Unstratified deposits have been divided into eruptive masses, as in the iron ore beds of Lake Superior, and in Russia and Sweden; disseminated through entire rocks, as the cavities in the amygdaloid trap of Lake Superior filled with copper; contact deposits, as the Leadville deposits; stock works, as the Silver Cliff infiltrations; fahlbands, or rotten layers, in the silver mine of Kongsberg, Norway; impregnations, as the silver-bearing sandstone of Silver Reef, in Southern Utah; chambers or pockets in limestone, as in the Emma, Flagstaff, Eureka Consolidated, and many western mines; and lastly, mineral veins, which are themselves divided into gash veins, which occur in limestone, and are confined and limited both laterally and vertically to a single stratum, as the lead deposits of the Mississippi Valley; segregated veins, which are confined to metamorphic rocks. (The quartz veins in the gneisses and schists of the New England and Alleghany belt are examples. The ore bodies are in the oblong masses), and fissure veins which occupy crevices which have been formed by subterranean forces, and have been filled from a foreign source, by precipitation from heated chemical solutions coming from below. They traverse all kinds of rock, and are without definite limits.

But interesting as are these scientific investigations to the student and mine manager it must be admitted that with regard to the mineral deposits of Colorado there is one practical fact stated by the National Mining Association of Denver to which the capitalist attaches infinitely more importance; it is shown that for every $1 put into the gold and silver mines of Colorado there has been $2½ taken out; and, according to Frank Fossett, "Four mines in Colorado produced over one million dollars worth of bullion each the past year, three over half a million, and less than a million, three between a quarter and half a million, and nineteen that ranged between one and two hundred thousand dollars. There are scores of mines of smaller capacity or less development, while a thousand veins offered a living, or something better, to those who worked them." It might be said of California, Nevada, Utah, Idaho, Montana, Arizona, and New Mexico that while there are comparatively few mines that yield above half a million annually there are a thousand veins in each section that "afford a living, or something better, to those who operate them." It will thus be seen that while this industry makes millionaries it directly supports population. There is certainly then much justification for the remark that this mining industry might be said to be in great measure the lubricator of other industries, for when it flourishes all the wheels and cogs of the nation's trade and commerce operate more smoothly. The discovery and development of a single great mine advances all other industries—railroads and manufactories are constructed, thrifty towns and cities are built, and beautiful homes and noble monuments of architecture are created. This industry furnishes the greatest incentive for the rapid population of new countries. The sudden and remarkable impetus which was given to the settlement of Australia and California about 30 years ago was owing to the discovery of gold in each. And the mineral resources of Colorado will prove equally effective in securing its permanent prosperity.

The mineral wealth of the whole of the Western States is really astounding. The has already been ascertained to be four well-defined, longitudinal belts of silver mines between the eastern base of the Rocky Mountains and the shores of the Pacific Ocean. First, the Colorado and New Mexico belt; second, the Utah and New Mexico belt; third, the Nevada and Arizona belt; and fourth, the California belt. According to Professor Rossiter W. Raymond there is "lying east of the California zone along the eastern base of the Sierras, and stretching southward into old Mexico, a chain of silver mines, containing comparatively little base metal, and frequently included in volcanic rocks." Should this become a demonstrated fact it will add another to the great longitudinal belts or zones of silver mines, making five in all. There are transverse sections of rich deposits and veins all through the western mountains, but these great belts of mineral are sufficiently well defined. It has also been proved that silver mines of great value exist in the Organ Mountain, and in the mountains south of Tucson, in the valleys of Rio Grande, Mimbres, San Pedro, and Gila rivers; and, it is asserted, on the strong proof of geological formation, that valuable deposits exist in the branches of the Gila and the Colorado of the West, flowing from the northern mountains. Turning from the mineral belts of the middle and southern districts to the northern district the prospect is equally encouraging. The two great mineral-producing territories of the north—Montana and Idaho—are altogether unlike each other in topographical characteristics. Montana is divided quite regularly into five great longitudinal basins by its mountain ranges, which show rich croppings of precious metals, and which have already yielded nearly $200,000,000; while Idaho is broken into many small, disconnected valleys by detached mountain ranges running in every conceivable direction, which show rich mineral croppings, and have shipped nearly $75,000,000 of gold and silver. The silver mines of Montana are deposited in fissures, demonstrated of great depth and permanence, and distributed by the generous hand of Nature into hundreds of veins. Gold is distributed in Idaho for hundreds of miles along the Snake river, and quartz mines cover an area of over 10,000 square miles along the Salmon river and its tributaries. In both territories tens of thousands of square miles remain unprospected. Dakota, Wyoming, and Oregon have made large contributions of precious metals already to the nation's wealth, and promise grandly for the future.

Silver mining in the United States is, as has been already remarked, steadily working out of the reckless, speculative phase which marked the early stages of its development, and is beginning to take rank as an important national industry, contributing annually to the wealth of the country an amount that can be calculated in advance with approximate accuracy, and depended on with as much confidence as the coal product or the yield of wheat. It is evidently destined to a great but not feverish expansion. The area of silver-bearing deposits is constantly extended by the researches of prospectors and the enterprise of capitalists; and with all the activity of the past two years there still remains so large an expanse of unexplored territory in which the precious metal is likely to be found that no limit to the future productiveness of this new industry can now be fixed. It is certain, says the same authority, that in the high, arid watersheds of the Continent, embracing the States and Territories of Colorado, Dakota, Montano, Idaho, Utah, Nevada, Arizona, and New Mexico, there is a vast store of argentiferous ore; that the location of only a small part of it has been determined and its development barely begun; that the mines opened and worked, when opened on well tested veins and worked with reasonable sagacity and economy, have yielded handsome profits. The business is, therefore, a legitimate one, inviting to investors of surplus capital and men of enterprise. If people will exercise the same prudence in buying mining shares that they exercise in buying bank shares and railroad shares, the gambling feature in it will soon disappear, and the risks of loss will not be more serious than in mercantile or manufacturing ventures. The estimated wealth of the United States has increased from $30,000,000,000 to $50,000,000,000, and it is truly remarked that no man of intelligence can look back over the history of the past 30 years with a full knowledge of the achievements mining has wrought, besides the enormous amount of precious metals it has added to the commerce of the world, without the conviction that mining is as legitimate, safe, and remunerative as any other line of industry conducted with equal care and fairness.

CANADIAN MINING—RAILWAY AND GENERAL NOTES

SIR,—The Dominion of Canada is in a very prosperous condition. There is no country in the whole world that offers equal inducements for the poor man or the enterprising man to settle in. The United States has, perhaps, some advantages in the way of climate and population and market, but in Canada we have good Government, good laws properly executed, and are to a great extent free from the pests of political and municipal corruption which cause so much trouble to the United States. If any enthusiastic Yankee who reads this article denies the truth of the statement, and is still prepared to assert that the United States is the best governed country in the world, let him take up the New York Herald and read the accounts of the death rate caused by the filth of the streets. The ratepayers paid the money for cleaning, but the Commissioners found it difficult to let the produce of that money get through their hands, and preferred having money to clean streets or anything else. "Let the poor die of disease as long as we are happy." That is the motto of the political cliques who run the political machine in the United States. The people of England as a general rule know very little of the way the political machine is run. They would be astonished if they did, and when they understand about that political machine that runs the United States and is run by the engineers in politics, they will not wonder, they cannot wonder, at the existence of corruption—politically, morally, and physically. In the first place all office holders have votes. When an election approaches the "ring" or party send out a circular to all the office holders and assess them according to their offices for money for necessary expenses of election! O Moses! These office holders know that if their party is turned out they will be turned out. If their party keeps in and they do not pay up the assessment they will be turned out anyway. These men have families to support, and therefore pay up and look as happy as possible. It is a personal necessity they should retain their offices, it is a political necessity they should pay their assessments in order to have a chance of keeping their offices. Next step is for the "ring" to call a "convention." At this convention the candidates are elected by the delegates, and the ring runs the delegates. If they have two or three rings in the same convention, all belonging to the same party, there is a contest between the engineers of the different rings. This is the only real contest in the election of the President, for when election day comes all the voter can do is to vote for one or the other of the candidates chosen by the political kings. The voter has "Hobson's choice," and he can "jump from the frying-pan into the fire" if he wants to or *vice versa*. He has his option in that particular. After the President is elected he appoints his cabinet, and these remain in office for four years without any responsibility to the people, it may be without the confidence of the majority of the representatives in the Board of Congress and in the Senate. They are in fact practical autocrats of the destinies of 49,000,000 of people for the next four years. Add to this that the Houses of Congress can pass any money bill if they choose against the desire of the Cabinet, and, except for the veto of the President which can be upset by a two-thirds majority, the Executive Government have no control over the expenditure for "appropriations," and have no responsibility.

Lord Dufferin was right when he said the people of Canada were too democratic to look with favour on the system of Government as carried on in the United States. But to a Canadian at all acquainted with the sentiments of the Canadian people those two articles of advice published in the Contemporary Review, one from the pen of a Mr. Anderson and the other from the pen of a Mr. Clark, are extremely amusing. Either those men were writing in a "Pickwickian sense," or they did not know anything about what they professed to believe. Probably they were writing for their living, and did not care how far they wandered from the truth. It does not manifest much knowledge for the Contemporary Review to publish such articles. Mr. Nicholas Flood Davin, in an able article on the "Future of Canada," published in the Canadian Monthly for May, has thoroughly exposed their ignorance, while there is not a reader of those articles living in Canada who does not laugh at their foolishness. These two wise "tailors of Tooley-street" advocate annexation to the United States, and with all the wisdom of the "Tooley-street tailors" tell us it is for our advantage. They must have little appreciation for the benefits derived from the British Constitution under which they live (for they are Englishmen), or they have a vast ignorance of the "political machine" in the United States. They had better do what Goldwin Smith did. Let them go and live in the States for awhile, and after a few years they will again follow his example and move over into Canada.

I am sick and tired of those parrots that often write for English Reviews. They take up any subject in the heavens above or the earth beneath, or the waters under the earth, imagine a lot of propositions which they call "facts," and then write a long article for the purpose of arriving at an erroneous conclusion. Their method of collecting "facts" may be briefly illustrated. I was travelling on a steamboat running from Montreal to Hamilton. On that boat I got acquainted with a young Englishman, polite, versatile, and educated. After awhile he told me he was travelling through Canada and the States, and was employed to write an account of those countries by an English publisher. I asked him how much of Canada he was going through. He said he had landed at Quebec, come up to Montreal and was on his way to Niagara Falls, from whence he was going to branch off to the United States.

Such were the "Travels in Canada" of this writer for the Press? He had not seen the Ottowa River, Ottawa City, the Eastern Townships, Central Canada, the Peninsula of Ontario, the north shore of Lake Huron, the whole Superior country. Yet he felt himself qualified to write about Canada. "Fools rush in where Angels fear to tread," and the only excuse they have is that they are fools.

But enough has been said. Canada will take care of herself without the "advice" of those who "travel" so far in the Dominion and know so much more than Canadians themselves about her interests. The great North-West is opening—a country nearly as large as the whole of Europe—a fertile land, well watered, abounding in all the wealth of natural resources, land that will produce 34 bushels to the acre; streams and lakes and rivers full of fish and wild fowl, gold, silver, copper, lead and iron scattered with prodigal profusion along the foot-hills of the Rocky Mountains. The energy of the Canadians cannot be surpassed even by the indefatigable Yankee; and the latest move is a project for the production and manufacture of cheese on a prodigious scale:—

"The extensive cheese exporter, Mr. George Morton, of Kingston, is at present in the city. He has had several interviews with the Governor-General and members of the Cabinet pertaining to matters in connection with his North-West colonisation scheme. His intentions are to form a company with a paid-up capital of $400,000, to fence in 224 farms of 160 acres each, break up 40 acres on each farm, build a good house, and stock each lot with 30 milch cows. All these farms to be served by a narrow gauge railroad of 2 ft. track, with a station at every man's door, the railway to be 33½ miles in length, with 58 stations; also to collect the milk twice daily for six months or longer, to raise all the calves instead of deaconing them as practised in dairy districts of America, and to build an immense cheese and butter factory for manufacturing cheddar, stilton, and gruyere cheese from the 6700 cows, which could be sold or rented at the option of the settler. This scheme will be of great advantage to poor men having families who can milk stock, thus saving the otherwise necessary outlay for labour. It will doubtless cause a stir in the cheese-producing communities of America and Great Britain. Connected with this scheme 75,000 acres of a ranch for feeding steers are required, and are expected to be leased from the Government."

Your readers will see from this that Canada is not to be beaten. But the railroad agent of the States, assisted by the Hon. Edmond Blake (leader of the opposition), who in his speeches ran down Canada and talked up Kansas, have been able to carry our men to settle in Dakota.

Mr. Nicholas Flood Davin's article to which I have alluded is fully commented upon by our Press.

I have given you such a long letter that I must defer writing in full with regard to the Grand Trunk Railway till next mail. That incorporation has every opportunity of increasing its large business, but it often makes our people angry by not carrying on their business on more liberal principles. For instance, all over the Continent of America if a man buys a ticket he has a right to ride on that ticket, but the Grand Trunk Railway try to limit his right to the day on which he buys the ticket. As a consequence of this passengers prefer going on American railroads if possible. It is perfectly foolish for the Grand Trunk to adopt such an illiberal policy, for they have plenty of room in their cars as a general thing, and if the train has to run I do not see what difference it makes to them whether they carry the passengers one day or another day. Another thing they act against the law of the land in not running three classes of cars—a first-class, a second-class, and a third-class—between Montreal and Toronto each day at the price of 2d. a mile for the first-class, 1½d. a mile for the second-class, and 1d. a mile for the third-class.

There are several other objections to the manner of working the line with regard to freight. They are perhaps trivial in themselves, but it is just that teasing kind of action that make the people angry and cause rival roads to be started. BOURNONITE.

Brockville, Canada, May 7.

P.S.—There is a small excitement in Nova Scotia with regard to mining. A Halifax despatch says:—Adams and Decamp, of New York, who recently purchased the Barton gold mining property at Langier, in this county, have sold it to the Salemo Gold Quartz Company, a New York corporation, for $100,000. This firm are negociating for several other mining properties in the Province.

GOLD MINING ASSOCIATION OF CANADA.

SIR,—In the letter of "Scrutator" on the above company, which appeared in last week's Journal, there are one or two remarks to which I think I might fairly take exception, as they are likely, in my opinion, to mislead my fellow-shareholders, whom I principally address through the medium of the Journal, as I know from the statements of many at the meeting they are readers thereof. In the first place, I do not know of any "painstaking efforts" on my part "to favourably demonstrate the company's position," and these words without additional explanation are so ambiguous as to admit of several constructions. Again, as to the circular which was sent to the shareholders—it is true in my communication of May 26, which appeared in the Journal of the following Saturday, I did say that I was satisfied, but not the first part of the circular, which contained a list of material only that had been purchased for use on the company's property. . . . I can but repeat that I am satisfied with the assurances made by the directors at the statutory meeting, as, although perhaps unable to criticise in so able a manner as "Scrutator," yet I cannot bring my mind to believe that a board of directors at a public meeting of shareholders would systematically combine to give utterance to statements which, if not true, could only be designated by one appellation. As before mentioned, I am sceptical in all mining ventures, knowing full well that those who deal in hidden mysteries must not always expect to turn up the trump card, but as an adventurer in this mining spec, as designated by Cornishmen, I simply want to have a fair chance for my money, and as the directors assured the shareholders that notwithstanding the small amount of working capital at their command, yet they believed that with such amount as they had they would in reasonable time be able to give satisfactory results in redemption of the pledges set forth in the prospectus. The question as to machinery, &c., was fully gone into at the meeting, and myself and fellow-shareholders were informed that sufficient could be purchased with the money in hand to warrant the board in holding out the payment of a dividend at the beginning of next year. "Scrutator" would lead others to suppose—at least I should say so from his remarks—that he has a personal knowledge of Mr. Humphrey and of his power of pleasantly surprising people, and also of Mr. Chaplean and of his great powers in laying out capital, and if he can in any way enlighten me or my fellow-shareholders as to the unfittedness, incapacity, or other drawback of either of the above gentlemen, or of any of the directors, we should feel extremely obliged, as I can honestly assure him it was upon the faith of the strong directory set forth in the prospectus that I applied for 100 shares. In apologising for troubling you at this length I would ask, Sir, finally—is "Scrutator" a shareholder in this company?

Holloway, June 8, ——— H. W. HIGGINS.

WHERE IS THE COMSTOCK MINE?

SIR,—I see it stated in the prospectus of the Sosa-y-Mendez Gold Mining Company that Mr. George Attwood was for several years engineer of the famous Comstock Mine, probably the richest silver and gold mine in the world. May I ask if the mine mentioned is supposed to be in America? There is no mine of that name of any account in the United States. If the intention was to refer to either the California or the Consolidated Virginia Mine, on the Comstock lode, may I ask when Mr. George Attwood was employed by either of these companies as their engineer? I ask for information, and if Mr. Attwood is not in London perhaps one of the Sosa-y-Mendez directors can reply. AURORA AND EBERHARDT.

White Pine, May 3. ———

THE ST. JOHN DEL REY COMPANY, AND "VERDAD."

SIR,—With reference to the Notice to Correspondents, April 2, "Verdad" desired a few words in explanation, not extenuation. I also mentioned the fact that I was not in any way interested in the rise or fall of St. John del Rey shares, and that I never had transactions beyond a sale of 300*l.* stock, which sale was made in July, 1880. I now add that I am prepared to give proof of every statement that I have made, whether the directors of the St. John del Rey Company express a desire to have me do so or not. . . . I am aware that the directors of the above-named company are unaccustomed to having their course in Brazil criticised, and that they object to it now most earnestly; but the *Mining Journal*, as an independent authority, wishing to give the public the best or most accurate information on the condition of all property in which they are interested, should be the judge of what is right to publish. The St. John del Rey Mine is worked in London, and shareholders are told to go to the office in London if they want exact information, . . . and not listen to information from the district where the mine is situated. . . .

I add a word to tell you of an accident by which three men were killed in the St. John del Rey Mine just now—one Englishman leaving a large family. I want to show you stage by stage, or step by step, that I gave you the truth about that mine and company. The

company report, by telegram, mythical "strikes" great improvements in their mine, which are unknown to the miners; but I have yet to see a report of the fatal accidents which often occur in the mine.

You know it was stated that I had abused your confidence; that I was writing for a purpose to "bear" shares, and all I had said was contradicted, whereupon the shares rose greatly in price.

Ouro Preto, Brazil, May 6. —— J. R. PARTRIDGE.

DIAMOND MINING IN SOUTH AFRICA—No. III.

SIR,—In looking over my letter after it appeared in last week's Journal it occurred to me that in dealing with the subject of holdings in the mines I may not have written sufficient to make it clear to those to whom the subject is altogether new, who naturally will desire to know what is the nature of the titles upon which such claims are held. As I desire that my letters shall convey explicitly the information upon all the points which it is important that investors in Europe should fully understand, I will, with your permission, recur to the matter again.

I stated that when the only title which a claimholder holds to give him an ownership in a claim was a monthly license claims changed hands at 6000*l.* per claim. This monthly license set forth that the holder had a right to dig in a certain claim, the number being given, for a month from the date thereof, for the sum of 10s., for the payment of which sum the license was a receipt. The license in itself gave the holder no right of property in the claim. He had only the right as far as the license went to take out as much diamondiferous soil as he chose or was able during the month the license ran. There was nothing said on the license about the right of renewal, and it was contended by the companies owning the mines at one period of diamond mining history that in law the right of renewal was not with the claimholder. I merely mention this to show how uncertain the tenure was upon which claims were held, and yet diggers were so satisfied with it that claims changed hands every day in the week for thousands of pounds. I said in a previous letter that 6000*l.* per claim was paid even upon that holding. I might have said 10,000*l.* instead of 6000*l.*, and it would have been equally a fact.

It was only when men had realised large fortunes in the mines and it was found that expensive machinery was necessary to work claims, and that claims to be worked profitably must be blocked; and seeing that the day would come when it would be necessary to put claims before foreign capitalists, that the great body of the claimholders saw that they must have an indisputable ownership to what had really become their fixed properties. The claims, too, had become so immensely valuable, tested by their rich yields, that it was clear to every man capable of dealing with the subject that the true value would never be realised if sales were confined to the local markets, for that is really what it came to. The mass of the people in the Cape Colony up to 1876—aye, 1878—understood no more about claims in the diamond mines than did the people of this country a year ago. They knew, of course, that a vast number of diamonds was shipped from the diamond mines. They saw men who had left the Cape Colony with hardly 1*l.* to call their own come back with fortunes; and the chief part of the community of every town said it could not last. They tell a different story now.

When I say that the companies who owned the mines questioned the rights of ownership which the holders of licenses contended for, I must not be understood to say that after a mine was proclaimed any attempt was made to evict the claimholders. This question of proprietary *versus* diggers' rights does not arise here. They have been settled now and for ever. But I cannot forego this opportunity of saying that the claimholders had a great deal more difficulty with the nominees of the Crown who were appointed Administrators of the Government than ever they had with companies. It is indisputable that the capitalists of this country might have, and indeed would have, had a share of the millions which the mines have yielded but that the nominees of the Crown obstructed the passing of laws witholding diggers' "rights." However, at last, and not more than about a year ago the then head of the Griqualand West Government conceived that the demands of the claimholders was no more than fair, and that amongst other rights that of the right of property in claims should be given them.

The title in all the mines is registered, like that of every other kind of landed property, and the tenants can never be disturbed in possession. There can be no concealed mortgage or hypothecation in any case. The title and the Government register reveal everything.

The number of claims in the Kimberley Mine, as shown in the valuation plan of the Kimberley Mine, is 380; in Bultfontein 1069; and in Du Toits Pan 1649. I have no plan of Old De Beers at hand, so I cannot give the number of claims in that mine. Any one who is desirous of seeing what a valuation plan is like can do so at any time by calling at my office. These valuation plans do not give the selling price of the claim, the values are not fixed for sales, but are the appraisement of the mining boards. Neither the Government on the one hand, nor the London and South African Exploration Company on the other, have any control over the working of the mines, that is entirely in the hands of the claimholders themselves. The Government simply appoint an Inspector of Mines, who only takes care that the claims shall be so worked as to prevent the claim-working being dangerous to life.

The claimholders in each mine every year elect a board, and no man is qualified to sit on that board who is not a claimholder or the agent of a claimholder. That board has an engineer who regulates the working of the mine. The taking out of the reef and water is a charge upon the whole of the claimholders, and is paid for out of the revenue of the board, which is raised by reef and water rates.

To levy rates a valuation, of course, is necessary, and the valuation is made by three valuators appointed by the board. When the valuators have reported their valuation it is posted for the inspection of the claimholders, and a day is fixed for the hearing of objections, and claimholders in the diamond mines are as capable of looking after their interests as most men. The valuation is keenly watched, and the claimholder who fancies his claim valued too high is not slow to object.

As a rule the value for rating purposes is about two-thirds of the amount realised for claims when they are sold by auction. A claim valued at 7000*l.* on the valuation plan, at the commencement of 1880, never in any case to my knowledge realised less than 10,000*l.* when sold by auction or by private hand, and claims to-day are in the hands of companies, and through being worked by companies have reached the value of 25,000*l.*, and that is their selling price. I know that these figures are startling to persons who are not acquainted with the mines and their development, and so will the following rise in the value of the estate on which the Kimberley and De Beers Mines lie when I state it.

I mentioned in a previous letter that this property—Vooruitzigt—was held by a company at Port Elizabeth, and that in 1875 it became necessary to the welfare of the owners of building sites, as well as the owners of claims and the Government, that it should become the property of the Government. The company offered the property to the Government for 100,000*l.*, they purchased it of the original owners for about 6000*l.* The Government thought it too exhorbitant, and turned their backs to the company for some time. I never thought it a penny too much, and did my best to urge the Government to take it at once at that figure. After some time the local Government thought 80,000*l.* might be given, and Sir H. Barkley, who was then Governor, was authorised by the Earl of Carnarvon, who was then Secretary of State for the Colonies, to purchase for that amount but not to go beyond it. In a conference that I had with Sir H. Barkley upon the subject I think he will do me the justice to say that I showed him not that the estate ought to be in the hands of the Government, for that he knew himself, but how the farm would at once more than repay the Government for the purchase. But sufficient to say here that the estate was ultimately purchased for 100,000*l.* That was but five years ago. To-day the Government would not sell the estate, and ought not to sell it for 2,000,000*l.* (two millions) of money.

What is it that has increased the value of that farm so much? The yield of diamonds in the mines and nothing else. The same thing may be said of the Du Toits Pan and Bultfontein Mines as of the other two. When the Government bought out the Port Elizabeth Company and secured the two mines and towns which now belong to it, there was a great outcry that the Government had been guilty of a job. The London and South African Exploration Company, however, was more far-seeing. In a conversation that I had at the time with Mr. H. B. Webb, the managing director of the company, who resided at Du Toits Pan, he told me that he would not advise his people at home to sell, even if a quarter of a million of money was offered. Had the Earl of Carnarvon understood the matter then, and permitted the London and Exploration Company's mines and towns to have been purchased for the Government, the Government would have had, even if the London and Exploration Company had been paid a quarter of a million, another two millions of property in that part of the world. When there is any doubt as to the legitimacy of this rise in value of landed property or claims in the Diamond Fields it should be remembered that the yield of diamonds has gone on steadily increasing from 1871 from half a million to four millions sterling (in round numbers) in 1881.

In talking to a City editor the other day, I pointed out to him some of the important facts which I have brought to your notice, and he said, "Suppose what you say should not be true. We have had reports from gold fields in India, and see what they have come to; they were going to be such splendid investments." This is just the way men talk when they do not understand a subject which is brought under their notice. I said, in answer to him, "The gold fields of India to which you refer were not producing; those who reported upon them believed they would, perhaps, but there was no proof. You have not to take my word for the truth of what I am telling you. Here are the 4,000,000*l.* of diamonds for you to see" But he was a City Editor, and because he is familiar with the transactions on the Stock Exchange, was confident he knew better than I did, and would not be told.

I find that my letter is sufficiently long, and as I desire to establish points as I go, I will forego some references to official returns which I intended to have made to-day. R. W. MURRAY.

South African Office, Upper Thames-street.

THE DEVALA PROVIDENT GOLD MINING COMPANY.

SIR,—Fully agreeing with the remarks made by a correspondent in last week's Journal with respect to the above-named company, I beg my fellow-shareholders to retain their shares, as I hear from a trustworthy source that our operations are as well advanced as those of any other company in the same district, except those of the Indian Gold Mining Company of Glasgow, from which such a splendid return is now being made, and whose shares are now worth 70*l.* Our land is in the same district, and from what I hear a little patience will be amply repaid. —— A LARGE SHAREHOLDER.

EUREKA (NEVADA) MINING DISTRICT.

SIR,—I have the pleasure to communicate my usual items of news from this mining centre:—

There seems to be no doubt that Eureka is to have an eastern outlet by rail. A dispatch published in the Sentinel a few days ago stated that all necessary arrangements as to funds, &c., had been made with eastern parties. The proposed road is called the Utah Western. The Salt Lake Tribune editorially says that arrangements have at last been made for the immediate construction of the road, which are on the most substantial and satisfactory basis; that is to say, the parties now interested in the enterprise are convinced that it will prove a good paying investment, have plenty of ready money, and are determined to use it in pushing the road to completion as quickly as possible. The route, which was to have been by Deep Creek, will be changed to a better one further south, by which Eureka can be reached from Stockton, the present terminus, with 200 miles of track. A surveying party was to start out to make a thorough examination of the proposed route, and it is estimated that an accurate idea of the country can be obtained by the surveyors in 30 days. The positive statement is that in 60 days—90 days at farthest—the dirt will be flying in the direction of Eureka.

The recent Richmond-Albion suit has had the effect of advertising this district very thoroughly among mining men and capitalists.

Eureka mines are steadily growing in favour with Eastern investors. Every mail brings letters of enquiry.

Important improvements are being made on the north end of Ruby Hill, especially on Wales Consolidated. That company is now erecting an immense hoisting rig, weighing some 12½ tons. The engine is double acting, double cylinder, double reels, &c. It is now being erected over the double compartment shaft, the construction being done under the supervision of John E. Griffith, formerly of the Richmond. Everything is expected to be running within the next 15 days.

Silver Lick Consolidated, which is situated beyond the Wales, is also making some important improvements on their property, which have long been needed. A substantial boarding house is now being built, and grading for the new hoisting-works is also under good headway. This property has yielded upwards of a quarter of a million dollars, and now looks fully as well as it ever did.

The Williamsburg Mine is frequently alluded to in English mining journals, from which it is apparent that the movement, started by Mr. Rickard, of the Richmond, to incorporate a powerful company is being pushed. With such a company, possessing the will and means, Adams Hill would in all probability soon equal Ruby Hill, and add vastly to our bullion output.

In the California the west drift from the 190 level is in 235 feet, and the ledge will be tapped in 30 ft. more, according to Mr. Westcoatt's survey. Ore is being taken from the 50 and 100 levels, and shipped to the Richmond. The indications were never more favourable, and large quantities of low-grade ore are now in sight.

The first 50 ft. of the shaft of the Eureka and Boston has been completed, and proposals invited for another 50. A correspondent of the London *Mining Journal* estimates that this will prove a paying property at a depth of 150 ft., and bases his calculations on developments made in the Williamsburg.

The Bullwhacker, one of the Ruby Consolidated Mines, situated beyond the Silver Lick, is doing splendidly, as the returns from the furnace show.

Work was yesterday resumed on the Charter Tunnel. This tunnel has been run a distance of 800 feet. The location is looked upon as being first class.

A new development has just been made in the Dead Broke Mine, on Prospect Mountain.

We were pleased to learn that a rich strike of ore was made in the Bay State Mine, in Newark District, on Friday last.

A rumour was current last evening that an important strike had been made in the Prospect Mountain Tunnel. As the story ran the whole face of the tunnel was in high-grade ore.

Mr. Clark, superintendent of the Geddes and Bertrand Mine, was in town last night. He has got matters in pretty good shape to prosecute the work of development. Among other things a new pump, reaching down to the 350 ft. level, has been put in. There is a fine body of ore on the 75 ft. level. A drift has been started on the 150 ft. station, to cut the lode found above. The drift is now 40 ft., and is looking favourably. It is expected to tap the ore within a distance of 30 ft. more. As soon as the mine shall have been developed reduction works will be constructed to treat the ores on the ground. Mr. Clark is an excellent miner and manager, and we have no doubt that there is a bright future ahead for the Geddes and Bertrand.

F. Locan, president of the Eureka Consolidated, arrived on Sunday evening, and will remain here a few days.

George T. Terry, formerly superintendent of the Jackson Mining Company, arrived from California on Sunday evening. His arrival here indicates that work on the Jackson will be resumed.

The Phœnix Silver Mining Company of Eureka has levied an assessment of 10 c. per share, which will be delinquent on June 15 next.

The Eureka Consolidated declared its 67th dividend on Saturday last at 50 c. per share, payable on the 20th inst.

The late snowstorm covered the principal part of Prospect Mountain with about 2½ ft. of snow. It is reported to have been the heaviest storm on the mountain that has occurred during the past winter.

London, June 8. —— RUBY HILL

SILICATE OF GOLD.

SIR,—It is now generally acknowledged by practical and scientific chemists, miners, and geologists that this mineral exists abundantly in nature and in quartz, which is now crushed and washed for obtaining gold. Wherever an ounce of metal gold is extracted there are generally found in the refuse 20 ozs. of silicate of gold, which I have proved by tons. The tailings (refuse) of the gold crushing works in California and Australia, which contain no metal gold but only silicate of gold, are now used over again to extract gold therefrom with great success. I have known the existence of silicate of gold for 20 years, and have now succeeded in extracting the gold practically and with great profit.

Any correspondents of the Journal who work gold quartz or mines, and doubtless produce great quantities of silicate of gold, shall have every facility for using my invention, which is a great improvement on all preceding methods, on terms with which I am sure they will be satisfied.—*Falmouth Road.* —— J. PETER VRAGENBUSCH.

WOTHERTON BARYTES COMPANY.

SIR,—I am pleased to inform you that this company has eventually taken a step in the right direction—the erection of mills to grind the barytes raised from their mine. From what I can learn they have an ample supply of barytes for many years to come, and of good quality, so that they may expect to compete satisfactorily with other manufacturers. The foundations for buildings were commenced on Friday, June 3. The mills are to consist of four pairs of stones, driven by a pair of engines 30-h.p. nominal, and now in course of erection at the Sandycroft Engine Works. The boiler is one of Galloway's latest patents, which are remarkable for the small quantity of fuel they consume, and their excellency as generators of steam. Altogether the engines and boiler are of the most substantial kind. The stones are designed on the most approved principle, and driven from below. There is ample power in the engines to drive more stones if required, for which emergency provision is being made in the mills.

Of course it will depend greatly upon the weather as to when the mills will be completed, but from what I could see, when I visited the mine, they are getting on well with the work. The erection of the machinery, &c., is under the supervision of Mr. Jas. Sime, Liverpool.—*Chubury, Salop, June 9.* BARYTES.

NORTH CORNWALL MINING ENTERPRISE.

SIR,—Observing in the Supplement of the *Mining Journal* of June 4 a letter signed "A Miner from West Cornwall," in which the writer calls the attention of capitalists to districts likely to yield abundance of mineral, and being well acquainted with the properties mentioned, I have been called upon by some influential gentlemen (one of whom accompanied me) to examine certain mines, which I have done, and the grants secured; these mines will probably be wrought by one large company. I may here remark that some of these grants yield antimonial silver ore, realising over 85*l.* per ton, and the argentiferous galena from 20*l.* to 30*l.* per ton; in fact, I remember 100 lbs. barrel of stuff being ssent off in its crude state, which was broken from the lode in less than one hour, and sold for 50*l.* I am preparing plans and sections of the grants obtained, all of which yield rich silver-lead ores, and with adequate capital, economically expended, we expect that they will speedily become a great success, and bear out the statement made by the correspondent above referred to.

Pwllheli, North Wales. —— GEORGE SPARGO, M.E.

THE RE-WORKING OF THE WHEAL VOR DISTRICT.

SIR,—Mr. R. Symons certainly mistakes my recommendation of Great Wheal Vor, and if he will carefully peruse my letter in the Journal of May 21 he will discover that it is not the old mine I am recommending, but the unwrought portion of the lodes east of Crease's shaft to the eastern cross-course, and in this recommendation I have every miner and mining authority in the neighbourhood to back me—at least, all I have ever conversed with on the matter; and I say, without fear of contradiction, that this tin property affords such an opportunity for profitable mining as is scarcely to be met with. I know nothing to be compared with it, and will most assuredly prove as great a success as the old mine and its other neighbours have done.

I do not wish to go into the history of Mr. Crease's attempt to work the old mine, but will say this much—had the management been in better hands at the commencement I believe the old mine would now be one of the best, if not the best, in the county; and I will just state a fact or two by which the readers of the Journal may judge of the large amount of capital named by Mr. Symons. Only 4000*l.* was spent in underground tutwork operations, and for which only 220 fms. of ground was expended. What does this say for the management? On the other hand, with 4000*l.* only spent in tutwork operations the mine yielded 67,000*l.* worth of tin; and what does this say for the old mine, and where is there any mine in Cornwall that can at this time show better results, and what did Capt. Reed, the manager for the old company, say of Messrs. Crease's working?—that with the money they spent he would have worked the mine for 20 years if no tin was raised during the time, but they managed to get through with it in about six years, and 67,000*l.* worth of tin as well. I know that the deepest workings in the old mine at bounder is poor, and I know as well that at the bottom of Crease's the lode was left off worth more than 100*l.* per fathom; and at the 260, near Crease's, there is a more valuable lode still. But do not mistake me; I am not recommending the deep old working, but from Crease's shaft east to the cross-course and boundary. PRACTICAL MINER.

Helston, June 7.

GREAT WHEAL WORTHY MINE.

SIR,—The prospectus of the above company, which appeared in last week's Journal, is worthy of the best attention of the investing public. I know the property well, and confidently believe great success will be the result of a very moderate expenditure. I am glad to see it in such good hands, and that it is to be carried out in a miner-like manner. I hear that Captain J. Prisk is to inspect and report on this mine for private parties, and his report will be looked forward to with great interest, being a gentleman of position, and manages some of the most extensive mines in the county. MINER.

Sithney, June 8.

SOUTH WHEAL FRANCES.

SIR,—At the meeting of the shareholders in this mine, to be held on Tuesday next, there are three candidates for the office of purser—Mr. Pike, who is purser of West Frances; Mr. C. Bawden, who is purser of West Basset; and Mr. R. S. Teague. Now, South Frances adjoining both West Frances and West Basset, with each of which its interests have at times seriously clashed, it is of immense importance that its head officer should not hold a similar post in either of the others. The mere personal matter is of no importance, as all the candidates are thoroughly and equally deserving of public confidence, but on the ground named I would urge all shareholders who wish to consider only the interest of the South Wheal Frances adventure to support the application of Mr. Teague.

Redruth, June 9. —— AN OLD SHAREHOLDER.

EAST WHEAL UNY.

SIR,—Having seen in several provincial newspapers statements respecting a valuable discovery of copper ore in East Wheal Uny, I walked over to the mine from Redruth last Friday to satisfy myself as to the reality of the thing. The Western Morning News of May 7 spoke of the discovery in the 80 (82) fm. level, on Davis's lode, as being worth 40*l.* per fathom. Subsequently the same paper stated it to be worth 50*l.* per fathom. The West Briton of the 9th ult. said, "At East Uny they have cut a splendid bunch of copper during the past week at the 82 west, on Davis's lode, where it forms a junction with the great flat lode, worth 40*l.* per fathom."

East Wheal Uny when I surveyed the land there in the year 1835 for the late Mr. Samuel Cardozo was a portion of the Redruth United Mines, of which he was the purser, and which had an area of about 500 acres. About 30 years ago the present limits of East Wheal Uny comprised Clijah and Wentworth Mines, and were worked several years under the pursership of the late Mr. R. H. Pike. It was afterwards called Wheal Perseverance, and was worked by a Mr. Crawshaw for a period of about four years. He relinquished the works in 1876, when Wheal Uny adventurers purchased the mine for the sake of the pumping-engine, which was wanted to assist their engine in the drainage. At Christmas last Wheal Uny Company sold the mine to the present proprietors.

There are in East Wheal Uny eight lodes, on all of which there have been explorations, yielding considerable quantities of metallic minerals, but the mine was never rich till now. The lodes are named as follows, and the figures show the depths of the explorations:—Great flat lode, 82; Davis's lode (where the rich discovery is made), 82; copper lode, Clijah lode, 30; Mary Ann lode, 40; Julia lode, 90 (southern part of the sett, worked separately); Wentworth lode, 50; and south lode, 30; showing that it is a shallow mine still.

The 82 was driven west by Mr. Crawshaw by the side of the lode, 27 fathoms west of the engine-shaft, in apparent ignorance of its proximity. The miners working under the present proprietors have cut into the lode 11 ft., and have not yet reached the northern wall of it, or had not on Friday last. They have also intersected it 70 fathoms back, and find the quality good. I saw some of the produce of the lode, and brought some specimens of it to Truro. They show the lode to be, in my opinion, more valuable than the newspapers represented, which is natural, because of the additional exposition of its contents since their dates—quoted above. There is also a valuable lode of tin 75 fms. south of the deposit of copper. When the value of this discovery becomes generally known to speculators no doubt they will be anxious to become shareholders. The

mine by this improvement has been made valuable, and the shares will soon attain to a high figure. The agents invite inspection, for which they will afford every facility.

This discovery has enhanced the value of Wheal Uny shares, because the same lode passes through that mine, and the miners there are driving in the direction of the discovery. Now that the prospects are so bright it is likely that the several lodes in the sett will be more fully developed. The shares being in very few hands, it is desirable, I think, that the share list should be greatly increased, that extended operations may be carried on. It is highly probable that the discovery is the apex of a huge deposit, like that of the parallel copper lode in Wheal Buller, which gave a profit to Messrs. Davey and Co. of about 360,000*l.* The mine is in the heart of the best mining district in the county, having Pedn-an-drea at the north-east; Mount Carbis (where there is a rich lode of tin) at the east; Wheal Buller at the south; Wheal Basset, South Frances, West Basset, and West Frances at the south-west; Wheal Uny, Carn Brea, East Pool, Tincroft, Cook's Kitchen, and Dolcoath at the west; and West Tolgus, Old Tolgus, and South Tolgus at the north-west, all productive mines of the past or present time. R. SYMONS.

Truro, June 8.

BEDFORD UNITED MINES—GREAT HEWAS TIN MINING COMPANY.

SIR,—Referring to an advertisement in the Journal of last week, issued by the promoters of the Great Hewas Tin Mining Company, wherein it is stated that Capt. Richard Goldsworthy has resigned the management of the Bedford United Mines to accept the appointment of resident manager to the Great Hewas Mines, I request that you will publish this communication in your next impression to inform all whom it may concern that such statement is premature, and that Capt. Goldsworthy has not given up his appointment as manager of the Bedford United Mines. —— T. B. LAWS, Secretary.

EAST ROSE.

SIR,—The waterspout broke over this mine on the 9th July, 1846. "W. A. F." writes that he had prior to the meeting of shareholders called the Chairman's attention to the words I quoted from the *Mining Journal* of 1857, and that he (the Chairman) put them down to another of the "would-be detractors" of the mine, one who had forgotten that "mechanical science had made vast strides; that where wood was employed iron can be economically used to advantage, and to very much more purpose."

The levels in East Rose were some miles in extent; they were not only supported by timber trees, as in ordinary levels, but each side of the levels had to be *boarded up* close, owing to the soft nature of the lode. After the storm these timbered and boarded up levels were crushed together, and to open them again seemed impossible, and this probably led to your remarks of 1857, and which the Chairman of 1881 puts down to the "a would-be detractor" of the mine.

A further search in the *Mining Journal* might probably show the Chairman that when the old company found that the levels were crushed together they purchased the North Rose Mine adjoining (as that shaft was in hard and solid ground), and sunk it far below the depth of the crushed levels; then in despair they sold the whole to Captain Evans' party for 13,000*l.*, and the latter spent another 30,000*l.* in vain.

Perhaps the Chairman, who says iron is cheaper and better than wood, will give us some idea what it would cost, supposing the levels could be cleared or new levels got under them, to support them also with iron pillars, and case with iron every foot of the sides as fast as they were driven. —— READER.

PIONEER MINING COMPANY.

PANT-Y-PYDEW MINES, HOLYWELL.

SIR,—Having seen these mines referred to two or three times of late in the Journal, and having on the last occasion noticed the public were invited to "come and see," I accepted the invitation, and without any ceremony I called at the mines, and found both agents and workmen busily engaged—in fact, the place just now is a regular hive of industry. I was shown over the mine from one end to the other, and, by the way, it is a very extensive property, and judging from the ore being raised and the prospects of other important discoveries I am convinced that there is a great future in store for the shareholders.

I am informed that the directors in the Pioneer Company are also directors of the Date Coffee Company, which is one of the most successful companies that has been formed of late years; but, great as its success has been and still is, I venture to predict a greater prize in store for them at Pant-y-Pydew Lead Mine.

I have known the Halkyn Mountain district for many years, and have often made a tour of inspection through the principal mines; but never in my life have I seen finer blocks of lead than are being brought to the surface in Pant-y-Pydew from the eastern portion of the mine, and I am informed there are several other important discoveries on the eve of being made. I shall expect to see large sales of lead at an early date, and I am confident shares will speedily rise in value cent. per cent. —— TOURIST.

GREAT WHEAL POLGOOTH.

SIR,—I have seen a gentleman who is connected with Great Wheal Polgooth, who said that to have inserted my letter in the Journal of last Saturday I must have been misled. I have since made enquiries as to the particulars wherein my information is said to be erroneous, which I find to be the following:—1. Great Wheal Polgooth is of much larger area than that assigned to it in my letter; and 2. The tributary to the River Fal, referred to in the prospectus, is not the small stream coming down from Lanjeath, as I apprehended, but a larger stream descending from St. Stephens village; both of which streams are to be combined to drive a 60-ft. water-wheel, to be erected in the valley, for draining the mine, and which is considered to be equivalent in power to a 70-in. steam-engine, thus saving a large outlay in machinery and in current cost. R. SYMONS.

Truro, June 8.

GREAT POLGOOTH UNITED.

SIR,—"A Shareholder," in last week's Journal, expresses great confidence in the future of this enterprise. I sincerely trust that his hopes will be realised, though I must confess that my own faith in the company has been considerably shaken since I became a shareholder, for in the prospectus occurs this statement—"The reason these workings were discontinued was in consequence of the great depression in the price of tin, caused by foreign supplies. At the time referred to black tin was selling at 32*l.* per ton." I find, however, that a mining Circular, says—"During the whole of the depression of the tin trade it was worked at a profit." If this be true it must surely have stopped working from some other cause. On searching through old volumes of the *Mining Journal* I found that the Great Polgooth was formerly worked by a company which last paid dividends in 1852; that it continued working till 1856, when, owing to the hardness of the ground and the poorness of the lode, it was thought most prudent to stop. So far, however, from its tin fetching only 32*l.* per ton I find it fetched from 76*l.* to 80*l.* In the account of the meetings held in 1856 I find the name of Captain R. Hancock frequently referred to, and he, in his report issued with the prospectus of the present company, says he has been associated with Great Polgooth for the last 35 years, and that since the sinking was stopped, and within the last 20 years, tin has been sold from stoping the back of the adit and from the halvans.

It is plain from this that the mine has not, at any rate, been properly worked since 1861; but it occurred to me as just possible that between 1856 and 1861 some other company may have worked it for a time, and then stopped owing to tin falling to 32*l.* per ton. I accordingly searched through the indices of the Journal for the period in question, but found no reference to the Great Polgooth, nor on turning over the volumes did I once come across a record of tin selling for anything like so low a price during this period as 32*l.* per ton. On May 21 I wrote to the secretary, asking him if he would inform me when it was that the Great Polgooth stopped working in consequence of tin falling to 32*l.* per ton, but I received no reply. On May 30 I addressed the same question to the gentleman whose name stands at the head of the list of directors, but with no better result. The silence of these gentlemen, and the facts I have discovered recorded in the Journal as to the mine's past history, drive me to the painful conclusion that the paragraph I have quoted from the prospectus requires verification.

I see Mr. Symons thinks well of the Great Hewas; but in the Journal of March 31, 1860, there is an account of the last meeting of what I suppose was the last Great Hewas Company, where it was resolved to stop the mine owing to the poorness of the lode.

—— W. A. FROST.

SOUTH D'ERESBY LEAD MINE.

SIR,—May I ask, through the medium of the Journal, what has become of the above property? For a considerable time no reports have been published, nor have the shareholders received any communication from the office of the company. Enquiries addressed to the secretary and Chairman, and to the brokers who sold the shares and strongly recommended the undertaking, were unsuccessful. The secretary referred to the Chairman; that gentleman did not answer at all, and the brokers replied evasively. It seems the Chairman's time is too much taken up with the numerous new mining companies which of late have been floated, and in many of which his name appears as that of a director. The shares of the South D'Eresby are unsaleable, and, doubtless, will continue so unless some energy is displayed by the directors as to the working of the mine, and sufficient interest to acquaint the shareholders with their proceedings. Are there no means to remedy such a deplorable neglect? I have been a shareholder for over a year, but as yet have heard of no meeting.—*June* 6. A DISAPPOINTED SHAREHOLDER.

EAST LONG RAKE MINE, HALKYN MOUNTAIN.

SIR,—It is to me a pleasing task to report the success of any mine, but in this particular instance I feel an unusual amount of gratification, as I have predicted a great future for this mine from the formation of the company. Being in the neighbourhood I again paid a visit to the mine and was quite surprised to see the change wrought on the surface since my former visit; the whole aspect of the place has been altered, a substantial engine-house has been erected, and the masons and labourers are busily engaged in completing the boiler-house; a quantity of strong and useful machinery has been laid on the ground ready for erection, and I am informed the whole of the machinery for winding and crushing will be at work in a few weeks. I also saw a splendid heap of lead on the surface awaiting the completion of the machinery. The mine looks very good at several points, and can be made to yield an abundance of lead; indeed from the number of rich lodes already discovered and others within a short distance of being intersected, I believe it will shortly rank as one of the leading mines of this rich district. CYMRO.

BWLCH UNITED MINES.

SIR,—During the past few days these mines have been visited by Mr. Marvin, the managing director, and by some of the principal shareholders, all of whom were much pleased, and I may say delighted, at the greatly improved prospects and valuable discoveries that have recently been made, and it is a source of gratification to me to be enabled to say that success is already established, and that a few more months will lead them into permanent profits and dividends. A few alterations and improvements are being made in the dressing apparatus, and these will be completed by June 20. The plucky manner in which this property is being handled not only deserves but ensures success, and it is devoutly to be wished that they would take in hand some more of the mines in the district, which would not fail, under such management, to be a boon to the mining community, and a source of wealth to those who would join in doing so.—*Aberystwith, June* 8. —— ABSALOM FRANCIS.

ONSLOW CONSOLS.

SIR,—I am obliged to my unknown friend, under the *nom de plume* "A Miner from West Cornwall," whose letter appeared in last Saturday's Supplement, upon North Cornwall Mining Enterprise, for drawing attention to the above valuable property. I must, however, differ from him as to the mine having been worked in a wrong way, unless he means for those who expended so much money upon good and substantial work for the benefit of future adventurers. Some of the lodes of this property have been traced beyond the sett, to the west of the River Camel. I have seen the one in Hengar Wood, and have a bit of the lodestuff; it certainly has excellent appearances, but it is the continuation of a lode south of the property worked as Great Onslow Consols, and discovered subsequent to such working. It forms a part of the same sett, and has as rich a copper gossan as any upon the old mine, it also has good arsenical mundic, and shows undoubted signs of a deposit of copper ore near to the surface.

50, *Cranmer Road, S.W.* —— GEORGE GREGORY.

GUNNISLAKE (CLITTERS) MINE.

SIR,—I could not find in last week's Journal any remarks on a letter which appeared the previous week, signed R. C. Seccombe. Now, sir, I have no doubt, from his letter, but that Mr. Seccombe knows the property well, and thoroughly understands how it has been worked; therefore I should be glad if he will reply to the following questions for the information of myself and those of your readers who may be interested in the welfare of the mine. If the present system of working the mine with one shaft only, and the present limited supply of water be continued, what are the prospects of increasing the dividends, or even of continuing to pay 1*s.* a share four-monthly? If another shaft were sunk, could more ore be returned without erecting an engine for pumping water from the Tamar for the purposes of dressing and condensing? Would it not be wise to put in a boring machine and some convenience for lifting the men up and down?

In speculative properties, like mines, the dividends should be sufficient to pay 10 per cent. on the price of the shares; but this mine will only pay about 3 per cent., with a great doubt, if rumour can be relied on, of continuing even for another dividend, therefore it is high time something should be done. A SHAREHOLDER.

MINING IN THE GUNNISLAKE DISTRICT—No. II.

SIR,—I see by "Observer's" letter of June 2 that he does not in the slightest degree comprehend me. I am aware that Dolcoath though about the depth he names presents a strength, yield, and freshness in the bottom which clearly indicate that it has not as yet nearly approached the seat of its formation. But this does not apply to the bottoms of Gunnislake, the late Fowey Consols, the late East Crinnis, and the like.

Capt. W. Snell, the most accomplished miner of his time, abandoned Gunnislake, and since that time subsequent searchers—as I have been credibly informed—have not received back in dividends a shilling in 1*l.* for their outlay. The same results attended the re-forking and re-working of East Crinnis. When this latter was about to be resumed my old friend Capt. Renfrey—who intimately knew the character of the bottom of the old mine—pointed to the absurdity of such an attempt, seeing that they had reached in the former working to points rather beyond the limits of its formation. They only thing that could have justified the resumption and re-forking of this section of ground was the exploration of the southern unbroken section of this range of ground; this was also the opinion of Capt. Joe Trewren and his sons Capts. Oliver and George, men fairly entitled to rank amongst the most able practical miners of this century.

It is nearly 30 years since I was underground at South Caradon, and I cannot speak as to the position or character of the preliminaries of the discovery of the Contra lode, which has upheld the existence of the mine for so many recent years. But I am told by eye and ear witnesses that its development was entirely due to the profound theory and perseverance of the late Capt. Oliver Trewren, as both Capt. Peter Clymo and Capt. W. Rule failed to appreciate its importance. I quote this circumstance in support of my opinion of the merit of these Capts. Trewren. I wish "Observer" to take note of this—that I believe in the existence of runs of ore varying in depth of seat from a few fathoms to depths not yet attained and scarcely dreamt of by the deepest bal miners, except my old assistant Will, whose theory went into the centre of the globe. For my own part I should not like to speculate upon an exploring shaft of some 4000 miles. What I want to draw close attention to is the difference that exists between the manifest nature of a head of a cabbage and its stump, and the contrast existing between the centre of a loaf and its bottom crust; and I repeat that I do not believe that "because ha has made" that, therefore, "ha will make again" when analogous appearances and a hundred abortive trials have proved the reverse; and I trust this explanation will assure "Observer" that, although I do not go as far as my old friend Will, on the whole, I am anything but a mere superficial miner. A MINER.

London, June 6.

[For remainder of Original Correspondence see this day's Journal.]

SIR BARTLE FRERE ON DIAMOND MINING COMPANIES AND DIAMOND-CUTTING.

An interesting and influential gathering, including the master and leading members of the Turners' Company, Baroness Burdett-Coutts, Col. Grant, and many other gentleman and ladies, took place at Messrs. Ford and Co.'s diamond-cutting establishment, Clerkenwell Green, to witness the process, and hear an address from Sir Bartle Frere. The visitors were first shown a large parcel of very small brilliants beautifully cut by the apprentices of the establishment. Then Mr. Porter Rhodes kindly exhibited his magnificent diamond which he had recently the honour of exhibiting to Her Majesty the Queen and the members of the Royal Family. It is certainly a magnificent stone. The visitors were next taken to inspect the diamond-cutting. The whole of the machinery worked by hand and employing about 20 hands was in operation, and the entire process was explained, the visitors first being shown how a large diamond of 17 carats with a flaw in it could be split so as to make the most of it; then the roughing was pointed out, and the company were taken through the line of works where the facets are put on the diamonds, and the final polish is given them. All expressed themselves highly pleased.

Sir Bartle Frere, having been introduced to the assembly by Mr. Greenhough, the master of the Turners' Company, said he had been asked to say something to those who practised their craft in this place about the diamond fields and diamond finding in South Africa, and to assist him in doing so several questions had been written down for him with a request that he would answer them. The first question put to him was—"What depth is the Kimberley Mine at the present time?" He would just remind them that it was about 12 years ago since diamonds were first discovered, which had led up to this vast and profitable industry. There were gentlemen here to-day who could tell them more about it than he could do himself. This vast industry was less than a generation old, yet the diamond fields had now become the centre of a great and permanent industry. He had been frequently asked what the diamond fields were like. Well, you go through a long stretch of undulating country bounded by long ranges of hills. It did not matter from what point you started, it was all the same; there were the same long lines of undulating country, and apparently the same ranges of hills bounding the horizon. Then you come to circles of depressed country, in which there are pans sometimes filled with water, and at other times without water, and filled with grass. Here and there there are mounds. There was a mound where the Kimberley Mine now is. That mound had been removed, and in its place there was a large pan. Round that pan there is a large town—a town that would be considered large in England, or in any other part of the world. When standing and looking down into the mine it looks at first as if there was a town of mud houses built below you. There are squares marked out in the great pit, and in amongst the squares are what, from the great height, look like a town built of earth and bricks, with all sorts of quaint elevations, just as you see in Syria and Egypt. The rock on the sides of the mine show how the strata was tumbled over when the great upheaval took place, and geologists all agree that some great subterranean force produced all this, and left a depression like a volcano, which is now filled up with what is called blue-stuff, a sort of clay, in appearance like lias. This clay when exposed to the air changes to a reddish ochreous colour, and then to a yellowish colour. In this clay the diamonds are found. You may sometimes dig for a whole day without getting the sparkle of a diamond, whilst at other times you find in abundance.

Sometimes the happy owner of a claim, like Mr. Porter Rhodes, walks away home to England with a diamond worth, say, 100,000*l.* in his waistcoat pocket, but generally the diamonds are shipped off through the post office to Europe. The value of diamonds shipped through the post office last year amounted to nearly 4,000,000*l.* sterling. The next question he was asked was—"Are the mines likely to continue productive?" Of that he did not think there could be the least doubt. There are other mines besides the Kimberley Mine richly productive too. These were generally known by the names of the farms on which they were discovered. Then there was one very productive mine in the Orange Free State, near Fauresmith, called the Jagersfontein Mine. This estate belonged to a lady who was glad before the working of the mine to make 100*l.* a year of it, but when he was on the fields he heard that she was taking 1200*l.* per month from the diggers. The working of that mine had then only just begun, but promised to be very productive indeed. The hon. gentleman then went on to give the geological theories regarding the formation of the mines. The third question was—"Would it not now, when the diamond mines are worked by companies, be advisable to form a diamond cutting company?" That was a most difficult question for him to answer. He would suggest that they should go and consult one of that most useful body of men known as promoters. He was not a promoter. This was a matter upon which they must exercise their own judgment. The industry of diamond digging was as yet in its infancy, as he was sure Mr. Murray, who knew so much more about it than any one else here, would agree with him in telling them. It was essential to the proper working of the mines that companies should be formed. There was a great deal of machinery at work there now, but to work with the utmost economy, and to realise profitably, companies were essential. Wonders had been worked already, but it was nothing in comparison with what the future would be when the companies brought all their force to bear upon the work. All that comes out of that mine must be worked by skilled artificers; no one portion of the yields but must pass through their hands, and his answer to the question would be in the affirmative. He believed that by co-operation the trade of diamond cutting would be benefited. Much more could be done by co-operation than could ever be accomplished by a single individual.

Remarks from other persons having been invited, Mr. John Jones, Past-Master of the Turners' Company, said that they had a lady there to-day, Baroness Burdett-Coutts, who had enabled the Turners' Company, under the advice of the late Prof. Tennant, to assist in restoring a trade which had well-nigh died out, if it had not died out altogether. There was a time when Great Britain took the lead in diamond cutting. In the time of George II. an Act was passed regulating the manufacture of diamonds. At that time the reputation of Great Britain for diamond cutting was very high. Then came the competition of Holland, until there was hardly one cutter left—hardly one, indeed, who could in case of accident to a diamond in setting put it right. They might, indeed, say that Prof. Tennant was instrumental in finding diamonds in South Africa. He had a pupil in his class named Atherton, and he set him to study the qualities of the diamond. The pupil sent home to his father, who was a surgeon in Grahamstown, a diagram which he had given him by Prof. Tennant, showing the form of the diamond. Well, they had been told how a trader came along and got the first diamond from a Boer for a shilling, took it to the chief authority, who sent it to Mr. Atherton, who knew nothing about diamonds, but who said, "I will look at my diagrams." He did look at his diagrams, which his son, the pupil of Prof. Tennant, had sent him, and then he saw the octahedron shape, and he said, "Oh yes, it is a diamond." He went off to the Governor, and the Governor sent it off to the Garrats here.

ascertained that it was a diamond, and as Governors had plenty of money, he gave 50*l.* more for it than anyone else, and so secured the first diamond. So it might be said that Prof. Tennant was instrumental in finding the first diamond. He then explained that the Baroness Burdett-Coutts, in order to restore the trade, at the desire of Professor Tennant, had offered a prize to be competed for, and, as stated in this paper, Prof. Tennant had taken three parcels of diamonds, sent one to Holland, one to Paris, and one to Messrs. Ford and Co., all to be cut, and that the professor had decided that Messrs. Ford and Co. had done their work the best, both in quantity and quality.

The history of the first diamond as given by Mr. Jones was to some extent traversed by Mr. R. W. Murray, who remarked that the story they had just heard about the purchase of the first diamond for a shilling was all wrong. Mr. J. O'Reilly was the trader who got the first diamond, and so far from taking it from the Boer for a shilling he refused to take it as a gift, because he felt confident that it was a diamond, and told the Boer so. He only took it on the understanding that he should get it tested, and that if it proved to be a diamond they should halve the proceeds. If it should go out to the world that Mr. J. O'Reilly had knowingly defrauded a Boer it would pain him very much, for he was an upright, honest, African trader, although it seemed in England that such a man could not be found in Africa. Then as to Prof. Tennant having been the means, through his pupil, of settling the question of diamond or no diamond, he did not wish to detract from the credit or honour of the late professor, but that respected gentleman had nothing to do with testing and deciding as to the quality of the diamond in question beyond this, that he might have had a pupil named Atherstone (not Atherton), the son of Dr. Atherstone, of Grahamstown, who sent his father a diagram showing the form of a diamond. Dr. Atherstone he (Mr. Murray) knew well; he was a most scientific gentleman, gave up a great deal of time to scientific pursuits, and was always ready to serve the public. He did get the diamond sent him to test, and no doubt he looked at the diagram the pupil of Prof. Tennant sent him to see the shape of it, and found it all right as to shape. The diamond was sent to Capetown to the hon. Mr. Southey, who was at that time Colonial Secretary, and he took the opinion of jewellers there about the stone, and they all said it certainly was a diamond. The people in South Africa were not all so ignorant on scientific and other matters as people in England appear to snppose. There was no occasion for sending it to England to know if it was a diamond, nor did the Governor get the diamond because he had money and could bid over the heads of his neighbours. It was sent to England that its fair market value might be ascertained, as Sir Philip Wodehouse, who was Governor when the first diamond was found, desired to have it and to pay a fair market price for it. He had known many governors in the Cape Colony; some of them had money and some had not; but he never knew one who bid against his neighbour, nor desired to obtain anything by means of his official position.

As South African diamond mining claims are at present attracting some attention in London, where several companies are in course of formation for working them, it may be interesting to mention that the companies already formed are in good favour among capitalists, in proof of which it will suffice to state that Mr. Stransky, who was for many years on the Fields, and who now deals chiefly in this class of security, quotes:—Adamant, 70s. to 80s. prem.; African, 12*l.* to 14*l.* prem.; Butfontein, D.M.C., no shares in market; Cape of Good Hope, D.M.C., 30s. to 35s. prem.; Central Dorstfontein, 48*l.* to 50*l.*; Central Jagersfontein, 1 to 1¼ dis.; Company Francaise, 47*l.* to 48*l.*; Fry's Gully, D.M.C., 14*l.* to 15*l.*; Gordon, D.M.C., 22*l.* to 24*l.*; Griqualand West, D.M.C., no shares in market; Homestead, D.M.C., 16*l.* to 17*l.* prem.; Kimberley, D.M.C., 42*l.* to 45*l.*; Kimberley Waterworks, 5*l.* to 5*l.* 5s. prem.; London and S. A. Exploration Company, 320*l.* to 325*l.*; London and Jagersfontein, D.M.C., nominal; North Block, D.M.C., 10s. to 15s. prem.; do., founders, 25*l.*; and Orion, in formation, 37s. 6d. to 42s. 6d. prem.

The North Block Company, which has now been formed to work claims in the Kimberley Mine, and the ground is in the vicinity of the blocks of the British and Central Companies. The capital is 110,000*l.* in ordinary shares of 10*l.*, and founder's shares of 1*l.* 6000 of the ordinary shares were offered to the public, and it is said that for these there were over 30,000 applications. The directors are —Admiral Sir W. Hewett, Mr. V. A. Litkie, Lieutenant-Colonel G. Coxon, Messrs. J. Newbury, C. E. Atkinson (Atkinson and Smith), and A. Cohen.

A correspondent writes that the French company's shares fell as low as 42*l.* last week, but have recovered, and are now quoted at 47*l.* to 48*l.* The Koh-i-Noor Company (Jagersfontein Company), by latest advices from the Fields, are greatly in favour, and the finds have been extraordinarily good. The reports of rise in value of ground in Jagersfontein is beyond anything we had counted upon, but we hesitate to quote figures. Latest advices afford the following information regarding the Du Toit's Pan Mine:—The claims in the first company quoted on the Stock Exchange (the Cape of Good Hope Company shares, which are now quoted at 30s. to 35s. prem.) were put into the company at 2000*l.* This was about three months ago; since that time the value of ground there tested by actual sales has risen to double that value, and in some cases valued at treble the sum, for the same class of ground. The Cape of Good Hope Company is forwarding most powerful machinery, and Mr. H. Cohen, the promoter, who with his partner, Mr. Soltz, holds a very large interest in the mine, leaves in a fortnight to inspect operations. A telegram was received from Mr. W. Newbury on Thursday respecting the operations in the North Block Company's ground, to the effect that they are down on "the blue" (the richest diamondiferous soil), and that the British and Central Companies, whose ground adjoins here, agreed to haul out the reef for them at once to expedite operations.

EXPORTS AND IMPORTS OF METALLIFEROUS ORES.—The usual annual return (moved for by Sir John St. Aubyn) of the imports and exports of metalliferous ores during 1880 has just been issued. Of copper the imports were—Ore, 100,420 tons; regulus, 45,055 tons; old, fit only to be re-manufactured, 3162 tons; unwrought and part wrought, 36,578 tons, and copper manufactures to the value of 94,296*l.* The chief ports at which it was brought in were Swansea and Liverpool. As to the sources of supply, Newfoundland sent 22,066 tons of ore; British South Africa, 15,795 tons; Venezuela, 15,216 tons; and Italy, 12,593 tons. Of regulus Spain sent 20,482 tons, and Chili 14,659. The figures for manufactured copper, if correct, are surprising, for Greece sent 61,656*l.* worth, and France 21,597*l.*, while the remaining 100,000*l.* worth was received from 21 other countries. The exports of copper were—Ore, 233 tons, of which, curiously enough, 230 tons were sent from Plymouth to Holland, and 3 tons from Liverpool to the United States; unwrought copper in bricks, pigs, &c., 15,448 tons; coin, 73 tons; yellow metal, 16,932 tons; wrought copper, 16,506 tons; together, exclusive of ore, 48,959 tons. The exports of foreign copper were—Ore, 11 tons; regulus, 222 tons; old, fit only for manufacture, 166 tons; unwrought and part wrought, 14,729, and copper manufactures of 18,269*l.* value. The imports of tin were—Ore, 190 tons, and blocks, ingots, bars, and regulus, 19,498 tons; and the exports were—British, 4419 tons, and foreign, 8722 tons. The imports of zinc were—Ore, 43,177 tons; crude, 33,301 tons, and manufactures, 16,677 tons. The exports were—British spelter, 8023 tons; foreign, 4214 tons; zinc ore, British, 749 tons; foreign, 17 tons. Of lead the imports were—Ore, 13,968 tons; pig and sheet, 95,049 tons, and manfactures, 988 tons. The exports were—British: Ore, 270 tons; pig, 21,797 tons; rolled, sheet, piping, and tubing, 11,754 tons. Foreign: Ore, 807 tons; pig and sheet, 4788 tons; and manufactures, 5 tons. The return also gives the countries to which the exports were made and the quantity taken by each.

ANNEALING IRON AND STEEL WIRE.—The object of the invention of Mr. W. HEWITT, of Trenton, New Jersey, is to provide a non-oxidising medium for charging annealing pots, by utilising waste hydrogen evolved and hitherto lost in the process of cleaning iron and steel wire, plates, &c. In the processes incident to the manufacture of iron and steel wire, plates and kindred articles, it is well known that they under certain circumstances become coated with scales of oxide of iron, which scales are generally in practice removed by immersing the wire or plates in an open bath of dilute sulphuric, muriatic, or other acid, with the result that the acid permeates the scales of oxide of iron and attacks the iron or steel beneath, whereby the iron or steel is oxidised at the expense of the water of hydration, quantities of hydrogen gas are liberated, and sulphate of iron formed. Heretofore the hydrogen gas above mentioned has been allowed to escape and become lost for all useful purposes.

THE COAL TRADE.

Mr. J. R. Scott, the Registrar of the London Coal Market, has published the following statistics of imports and exports of coals into and from the port and district of London, by sea, railway, and canal, during May, 1881:—

IMPORTS.

By Sea.	Ships.	Tons.
Newcastle	137	125,054
Sunderland	103	72,957
Seaham	30	16,874
Hartlepool	58	24,364
Middlesborough	4	2,717
Scotch	8	4,686
Welsh	23	18,554
Yorkshire	13	2,516
Small coal	17	6,365
Cinders	2	455
Colonial	4	976
Total	399	275,518
Imports—May, 1880.	375	243,387

By Railway and Canal.	Tons	cwt.
Lond. & North-Western.	127,652	0
Great Northern	90,042	0
Great Western	75,260	0
Midland	185,667	0
Great Eastern	53,768	18
South-Western	6,226	4
Grand Junction Canal	660	15
Total	539,276	17
Imports—May, 1880	470,744	2

Comparative Statement, 1880 *and* 1881.

By Sea.	Ships.	Tons.
Jan. 1 to May 31, 1881.	2138	1,593,591
Jan. 1 to May 31, 1880.	2252	1,562,142
Increase—1881	—	31,449
Decrease—1881	114	—

By Railway and Canal.	Tons	c.
Jan. 1 to May 31, 1881.	2,755,522	0
Jan. 1 to May 31, 1880.	2,583,914	0
Increase—1881	171,608	0

EXPORTS.

Railway-borne coal passing "in transitu" through district.....Tons		100,060
Sea-borne coal exported to British Possessions, or to foreign parts, or to the coast	66,714	
Ditto sent beyond limits by railway	25,192	
Ditto by canal and inland navigation	1,827 =	93,733
Railway-borne coal exported to British Possessions, or to foreign parts, or the coast	27,138	
Ditto, by canal and inland navigation	188 =	27,326
Sea-borne coal brought into port and exported in same ships		956
Total quantity of coal conveyed beyond limits of coal duty district during May, 1881		222,075
Ditto, during May, 1880		194,575

Comparative Statement, 1880 *and* 1881.

Total distribution of coal from Jan. 1 to May 31, 1881.	1,120,054
Total distribution of coal from Jan. 1 to May 31, 1880.	1,004,000
Increase in the present year	116,054

General Statement, 1880 *and* 1881.

Increase in coals imported by sea	31,449	
Increase in coals imported by railway	171,608 =	203,057
Deduct increase in coals exported		115,054
Total decrease in trade within the London district—1881		87,003

THE COPPER TRADE.

Messrs. HARRINGTON, HORAN, and Co. (Liverpool, May 31).—Chili copper charters for second part of this month were advised on the 26th inst. as 1100 tons, all bars, of which 800 tons for England, and 300 tons for the Continent. In the early part of the fortnight sales of Chili bars were effected as low as 57*l.* 5s., after which the market rallied, and the price has gradually advanced to 59*l.* for good ordinary brands on the spot, at which rate the market closes firm to-day, with buyers thereat and no sellers. This day last week smelters reduced their price for English manufactured copper 1*l.* per ton, but yesterday raised the same 2*l.* per ton. In furnace material a very considerable business has been done, and the sales comprise 25 tons Chili regulus to arrive at 11s. 9d.; 65 tons Peruvian ore at 11s. 6d. to 11s. 9d.; two cargoes Bolivian ore and regulus, ex Tocopilla and Marquis of Worcester, at 11s. 7½d and 11s. 9d. respectively; 2300 tons New Quebrada ore at 11s. 6d. to 11s. 7½.; 220 tons Quebrada regulus at 11s. 7½d.; 1400 tons Cape ores at 11s. 7½ to 11s. 9d.; 28 tons Battle Mountain ore at 11s. 9d.; 280 tons Libeola ore at 11s. 6d.; 250 tons Rio Tinto precipitate at 12s.; 300 tons at 12s. 1¼d., and 200 tons Rio Tinto regulus at 11s. 7½; 130 tons Mason's Spanish precipitate at 11s 9d., and about 1150 tons at 11s. 7½d.; 150 tons English precipitate sold at 12s.; and at to-day's Swansea sale by tender 1838 tons ores average produce 7¼ per cent. realised 11s. 0½d. per unit. Import of Chili copper during the past fortnight 1074 tons fine, against nil tons fine same time last year. Delivery during the past fortnight 1855 tons fine, against 750 tons fine same time last year. Arrivals here during the fortnight, of West Coast, S.A., produce: Patagonia (s), from Valparaiso, 50 tons bars, 100 tons ingots; Britannia (s), from Valparaiso, 215 tons bars, 250 tons ingots. At Swansea: Zeta, from Carrizal, 1020 tons regulus. Stocks of Copper (Chilian and Bolivian) in first and second hands, likely to be available, we estimate at—

	Ores.	Regulus.	Bars.	Ingots.	Barilla.
Liverpool	—	—	18,069	595	—
Swansea	—	3,035	10,656	—	—
Total	—	3,035	28,725	595	—

Representing about 30,635 tons fine copper, against 31,466 tons May 14; 31,810 tons May 31, 1880; 28,952 tons May 30, 1879; 20,302 tons May 31, 1878. Stock of copper contained in other foreign ore and Spanish precipitate, 1945 tons fine, against 3634 tons May 31, 1880. Stock of Chili bars and ingots in Havre, 4223 tons fine, against 3937 tons May 31, 1880. Stock of Coro Coro barilla in Havre 4223 tons fine, against 3937 tons May 31, 1880. Stock of copper other than Chili in Havre, 343 tons fine, against 65 tons May 31, 1880. Stock of Chili copper afloat and chartered for to date, 12,500 tons fine, against 17,600 tons May 31, 1880. Stock of foreign copper in London, chiefly Australian, 8839 tons fine, against 5300 tons May 31, 1880.

Messrs. HENRY R. MERTON and Co. (Leadenhall-street, June 1) issue the following Statistics of Copper:—

Stocks in Europe:		
Chili ores and regulus, Liverpool and Swansea (fine).....Tons		1,365
Chili bars in Liverpool		18,069
Chili bars in Swansea		10,656
Chili ingots in Liverpool and Swansea		595
Foreign copper (chiefly Australian) in London		8,653
Foreign copper " " Landing		181
Chili bars and ingots and barilla in Havre		4,480
Other copper in Havre		1,078
Stocks of copper contained in other foreign ore and Spanish Precipitate (fine)		1,945
Afloat, and chartered from Chili to Europe (advised by mail):		
Ore and regulus (fine)		1,468
Bars and ingots		7,486
By cable, ores and regulus (fine)		400
Bars and ingots		1,735
Afloat from Australia (advised by mail):		
Fine copper		1,177
By cable: Fine copper		685
Total		59,978

Price of bars, 59*l.*; Wallaroo, 69*l.*; English tough, 64*l.*

Messrs. JAMES LEWIS and SONS (Liverpool, June 1) write:—Chili bars declined rapidly during the first half of the past month, from 59*l.* on April 30 to 57*l.* on May 16, the market falling 1*l.* per ton in the face of charters for 1200 tons fine (1100 tons bars for England and 100 tons for France), advised on May 12. The sharp decline attracting purchasers, prices recovered 10s. per ton, and on May 24 an improved demand springing up, the market gradully advanced from 57*l.* 10s. to our closing quotation of 59*l.* for G. O. B. spot, additional strength being given to it by the advice on May 26 of charters for only 1100 tons (800 tons bars for England and 300 tons for the Continent), and of a scarcity of vessels on the West Coast, with a consequent advance in freights to 70s. per ton. During the last few days a very large business has been done in furnace material, as reported below, the sale of which has caused a considerable diminution in the stocks and improved the statistical position of this metal. The arrivals from Chili have been 1722 tons and the deliveries 3097 tons, and from other countries 2364 tons and 2828 tons respectively. The stocks of West Coast produce are:—Liverpool, bars 18,069 tons, ingots 595 tons; Swansea, bars 10,656 tons, regulus 3035 tons; total, bars 28,725 tons; ingots 595 tons; regulus 3035 tons; equal to 30,685 tons fine, against 32,060 tons on May 1; and against 31,810 tons fine June, 1880, when quotations were—Bars, 56*l.*; ore, 11s. 9d.; against 28,952 tons fine from June, 1879, when quotations were—bars, 55*l.*; ore, 10s. 10½d.; against 20,302 tons from June, 1878, when quotations were—bars, 64*l.* 15s.; ore, 12s. 6d.; against 15,527 tons from June, 1877, when quotations were—bars, 69*l.*; ore, 13s. 9d. The stocks of other than Chili produce are—Liverpool and Swansea, 1945 tons fine, against 2409 tons on May 1, and 3634 tons June, 1880; London, 8839 tons fine, against 9000 tons on May 1, and 5300 tons June, 1880; Havre (Chile, &c.), 5541 tons fine, against 4572 tons on May 1, and 4773 tons June, 1880, making a total of 16,325 tons fine, against 15,981 tons on May 1, and 13,707 tons June, 1880.

Messrs. RICHARDSON and Co. (June 1) write:—The stocks of Chili copper produce remaining unsold at Swansea on May 1 were:—Regulus, 2015 tons; copper, 12,681 tons. The arrivals since have been:—Ore, 690 tons (all sold); regulus, 1676 tons (656 tons sold). The sales also include 1025 tons of copper. The present stocks are—Chili: regulus, 3035 tons; copper, 10,656 tons; and ore (Cape), 383 tons; New Quebrada, 909 tons; Italian, 280 tons; Portuguese, 27 tons; British, 388 tons; Spanish precipitate, 1246 tons; making total unsold at Swansea—ore, 1937 tons; regulus, 3035 tons; copper, 10,656 tons; precipitate, 1246 tons, representing about 12,800 tons fine copper. There were no private sales of any importance until last week. On the 26th 870 tons New Quebrada ore fetched 11s. 6d. per unit, 700 tons Italian ore 11s. 6d.; 30th, two cargoes of Bolivian ore and regulus at 11s. 7½d. and 11s. 9d.; 1200 tons New Quebrada ore at 11s. 7½d., and 1400 tons Cape ore at 11s. 7½d. and 11s. 9d. The West Coast charters for the first fortnight of May are reported as 1200 tons bars all for England, except 100 tons going to France. For the last fornight 110 tons bars, 800 for England, and 300 tons for Continent. The copper shipments from that quarter for the first four months of the past four years were——16,099 tons, 15,625 tons, 17,698 tons, and 11,005 tons respectively.

THE TIN TRADE.

Messrs. STRAUSS and Co. (London, May 31) issue the following Statistics of Tin:—

	May 31, 1881.	May 31, 1880.	May 31, 1879.
Straits and Australian, spot.....Tons	8,358	7,030	10,188
" " landing	326	203	470
Straits, afloat	200	325	370
Australian afloat	1,225	1,065	1,139
Banca, on warrants	1,290	1,476	2,029
Billiton, spot	1,724	1,612	1,905
" afloat	650	1,230	1,130
Australian tin in Holland	—	200	200
Total	13,773	13,141	17,431
Prices of Straits and Australian	£88 0	£72 10	£66 5
Deliveries during month in London	1,037	995	1,104
" " " Holland	673	751	777
Total	1,710	1,746	1,881

Shipments during the month from Straits ..... 100 tons.
" " Australia..... 600 "

	During twelve months, 1881.	1880.
Shipments from Straits to London .....Tons	4,665	1,510
Shipments from Australia to London	8,832	7,403
Deliveries of tin in London	13,316	12,530
Deliveries of tin in London and Holland	21,244	20,256

Banca in Trading Company's hands and afloat, 1861 tons.

Prices: Straits of Australian, spot, 88*l.* 0s.; afloat, 89*l.* 0s. English common ingots, 91*l.* 10s.; refined, 93*l.* 10s. Banca, 89*l.*; Billiton, 87*l.* 15s.

Stocks of all kinds of tin in American ports (including quantity afloat), April 30, 1881, 2940 tons; May 31, 1881, 2750 tons; May 31, 1880, 7100 tons.

Messrs. EBELING and HAVELAAR (Rotterdam, June 1) state:—We have again to report a slow market for tin during the past month, the article having been adversely influenced both by the want of animation in business generally, and a total absence of speculation. The soundness of the position of tin, however, could not be better illustrated than by its continued steadiness in price, which gains all the more in importance if we take into consideration the heavy decline in the value of many articles of produce during the past months. A satisfactory consumptive demand has again been the chief feature during May. Supplies continue moderate, which circumstance materially assists holders in upholding present rates. The Dutch Trading Company's third sale in 1881 took place yesterday, when 23,489 slabs Banca were sold from 52½ fl. to 52¾ fl; average, 52⅝ fl. Next sale will take place towards the end of July. According to advices from Batavia the production of Banca tin in 1880 amounted to 72,684 peculs, against 77,615 peculs in 1879.—Banca: With a satisfactory trade demand the price declined from 52½ fl. to 52 fl., then again advancing to 52½ fl. Since the sale there are buyers at 52½ fl.—Billiton: The enquiry for parcels on the spot has been quite regular. A decline of ½ fl. brought out a good many buyers and holders soon raised their price again to 52¼ fl., which is our closing quotation. The production of Billiton for 1880-81 (from May 1, 1880, until the end of April, 1881) amounts to 78,928 peculs, against 84,712 peculs in 1879-80, 93,496 peuls in 1878-79, 61,794 peculs in 1877-78, and 59,532 peculs in 1876-77. The average production during the last 10 years is about 66,000 peculs. On June 21 from 12,000 to 13,000 peculs Billiton will be sold in public auction at Batavia. The position of Banca tin in Holland on May 31, according to the Official returns of the Dutch Trading Company, was—

	1881.	1880.	1879.
Import in May .....Slabs	966	10,640	10,923
Total five months	54,220	33,486	67,268
Deliveries in May	10,946	11,313	14,300
Total five months	65,121	56,598	51,325
Stock second hand	41,278	47,251	64,926
Unsold Stock	42,850	20,603	23,435
Total stock	84,128	67,854	88,361
Afloat.....Peculs	8,350	8,300	10,900
Statement of Billiton:—			
Import in May .....Slabs	8,500	6,729	714
Total five months	47,850	34,233	43,996
Deliveries in May	10,580	12,091	9,431
Total five months	44,978	39,885	36,651
Stock	55,186	51,602	60,957
Afloat .....Peculs	16,000	9,000	16,000
Quotation, May 31—Banca	52½ fl.	43½ fl.	39½ fl.
Billiton	52¼ fl.	43 fl.	39¼ fl.

These combined returns of Banca and Billiton for 1881, compared with those for 1880, exhibit—A decrease of the import for May of 247 tons; an increase of the import for the five months of 1073 tons; a decrease of the deliveries for May of 56 tons; an increase of the deliveries for the five months of 426 tons; a decrease of the stock second-hand of 75 tons; an increase of the unsold stock of 695 tons; an increase of the total stock of 620 tons; an advance of the quotation of Banca of 15*l.* per ton.

The Government returns for the months of March are as follows:—

EXPORT OF TIN FROM HOLLAND.

	For March. 1881.	1880.	1879.	For Three months. 1881.	1880.	1879.
To Germany .....Tons	351	317	140	826	868	741
England	19	—	166	229	635	176
Belgium	197	196	74	586	874	345
France	124	55	12	139	200	55
Hamburg	84	47	20	171	213	60
The United States	—	56	—	10	222	20
Other countries	7	3	—	73	64	3
Total	782	674	412	2034	3126	1400

TIN.—Messrs. FRENCH and SMITH (June 2) write: The same favourable feature continues which we have pointed out since the beginning of the year—consumption in Europe and America is in excess of production. The visible supply for Europe, including quantity in Dutch Trading Company's hands, shows a decrease of 1186 tons as compared with last month. The deliveries from London were 1048 tons, besides 220 tons Australian shipped to America, which quantity was included in our floating stock last month. Last year's production of Banca amounted to 72,684 peculs, against 77,615 peculs in 1879. On May 30 the Dutch Trading Company sold 23,489 slabs Banca at 52½ fl. to 53 fl., average 52⅝ fl., equal about 88*l.* 5s. there. The demand for English was good, and it is difficult to secure early delivery. We quote fine foreign 88*l.* 5s.; English ingots, 92*l.*; Banca, 52¾ fl.; Billiton, 52½ fl.

CENTRAL FOXDALE MINES—QUARTERLY REPORT.

June 7.—In the 135, east of engine-shaft, we have commenced cross-cutting north through the lode, and I am pleased to say that so far as cut into it is quite equal to our expectations, producing 1 ton of lead ore per fathom. In the 120, west of engine-shaft, we shall also soon commence a cross-cut through the lode. The 120 east, on the north lode, has a very promising appearance, and produces about 10 cwts. of ore per fathom. This remark may be applied to the same level on the south lode, which produces 15 cwts. of silvery ore per fathom. In the sump below the 120, on the north lode, which is now down 5 fms. 5 ft. 6 in., I am also pleased to see a marked improvement; the lode produces some fine stones of lead ore, which looks very promising for the 135. No. 1 stope, over the 120, on the north lode, produces 15 cwts. of lead ore per fathom; and No. 2 stope 1½ ton of lead ore per fathom. The two stopes over this level, on the south lode, east and west of No. 2 sump, are in a poor bar of ground, but will soon again enter more productive ground. The 105, east of No. 3 sump, continues in a compact though small lode, producing 15 cwts of lead ore per fathom. Judging by the slatey nature of the country rock in this end, I believe we are now entering Taylor's run of ore ground. The stope over this level, west of No. 3 sump, is opening out fairly well, and now produces 1 ton of lead ore per fathom. The machinery throughout the mine is in fair working order, and we are pushing on the drawing and dressing as much as possible, but do not get on in the latter department so fast as we wish owing to a lack of hands, which at this season of the year are not to be had. I estimate we have about 15 tons of lead ore in Douglas stores towards another sampling.—JOHN GARLAND.

WEST CARADON MINE.—Operations on this promising mining property are being pushed forward steadily and successfully. Since operations were commenced, about 15 months ago, a large amount of work has been done both underground and at surface. Practical men who have been down and inspected the property, and also the gineers resident in the district, are of opinion that West Caradon is a good speculation, and certainly the preseut appearance of the workings would seem to fully justify that opinion. One point of great interest is Jope's lode, which was very rich below and up to the 50 fm. level. There was also a very good lode at the back of this level, but in driving west the lode was found to be poor and the ground hard, and it was the opinion of the old miners that the lode must have been heaved south. When the order came to stop the mine a short cross-cut was being driven, but this was not driven far enough to ascertain whether the lode was standing or not. Some little distance to the west of the cross-course the old workers had a rich lode, producing large quantities of rich ore; worth, according to some of the old miners, from 100*l.* to 150*l.* per fathom. This lode seems to have been worked up 10 or 12 fms. above the 50 fm. level, and large quantities of rich ore were taken away. Then there is Gilpin's lode at the 38 fm. level, which is 70 fms. from Craddock Moor boundary; this same lode, at the adit level, is 60 fms, from the West Caradon western boundary, and in the adjoining Craddock Moor Mine they got a good lode from the 70 up to within 20 fms. of surface, and near West Caradon boundary. This point would be a good speculation of itself. Vivian's lode, which runs through the whole length of the sett, is also a most valuable and interesting feature, as will be seen from the agent's report in another column. With regard to other points, Downing's lode did not prove very rich but Clymos and the Main lodes, and also the Little North lode, pro

duced large quantities of rich ore in the eastern part of the sett. There seems no reason to doubt, in fact all the indications tend to the belief, that large quanties of ore will be found in the western ground when properly developed. There are other lodes of equal importance to those mentioned, having hundreds of fathoms of unwrought ground on each of them. It may be mentioned that Jope's lode was rich at the 128, and a good lode standing there now. On the whole, the prospects of this compact little property seem to be most promising. Some very rich specimens of ore, taken from some of the ends, are to be seen at the London office.

Meetings of Public Companies.

THE TAMBRACHERRY ESTATES AND WYNAAD GOLD MINING COMPANY.

The first ordinary general meeting of shareholders was held on Wednesday, at the Cannon-street Hotel, to transact the ordinary business of the company, and the special business following:—

To consider and if thought fit to pass, with or without modification, the following resolutions:—1. That clause 95 of the Articles of Association of the company be and the same is hereby rescinded.—That the directors be and they are hereby authorised to sell to a new company, to be registered under the Companies Acts, 1862 to 1880, with liability limited by shares, and having a nominal capital of 100,000*l*., divided into 100,000 shares of 1*l*. each, the Cootacovil Hill estate, situate on the Charlotte estate, belonging to the company, in the Taluok of Wynaad, with so much land adjoining as the directors may think fit, not exceeding in all 300 acres, for the sum of 60,000*l*., payable in cash and shares of that company, in such proportions and subject to such stipulations and conditions as the directors may think fit.

The chair was occupied by Mr JAMES LABOUCHERE.

Mr. H. TOLPUTT (the managing director) read the notice calling the meeting.

The CHAIRMAN said that in rising to address them on the present occasion he must begin by apologising, on behalf of himself and co-directors, for calling them together at a time of year which was almost a holiday, but the Companies Act was very decided upon the point, and the directors were obliged to hold a meeting within four months of the regi-tration of a company. That date would be due the day after to-morrow. The directors had put off holding the meeting as late as they could in order to give the shareholders all possible information about what had been done on the company's estates since the formation of the company, and also in order that they might have the pleasure of the presence of their engineer, Mr. C. J. Harvey, who had returned from India not more than eight or ten days ago. It was a great satisfaction to the directors to be able to congratulate the shareholders upon having secured for them such a fine property as the Tambracherry estates had proved to be. The directors certainly were full of confidence from what they had heard from Mr. Harvey when he was out in India, but that confidence had very much increased since they had had the opportunity of speaking with Mr. Harvey, and hearing the information which he had been able to give them about the property. This was really a statutory meeting, and at statutory meetings there was not usually much to be said. The company had been only just formed, and, as a rule, companies took a little time to get underweigh. They had had a small advantage in this respect—that they had had a very good staff of superintendents and intelligent men in the Wynaad, who were on the spot at the time Mr. Harvey visited the property, so Mr. Harvey had not to go into a track of jungle, but he had the advantage of speaking to men who had known the place for a number of years, and he also had the advantage of the presence of Mr. Moon, the company's superintendent, who had been educated as an engineer, and who understood everything Mr. Harvey told him, and was competent to carry out all Mr. Harvey's instructions. As he had said, at statutory meetings there was not generally much to be stated, but in this case the directors were fortunate in being able to place before the shareholders a plat for disposing of a part of the estate. But before coming to that portion of the business he might mention that the Stock Exchange had granted a quotation on condition that the directors should rescind a clause in the articles, which crept in unknown to the directors, and probably unnoticed by the solicitor. It was a clause of very small importance, and they decided at the first meeting to rescind that article, and a resolution to that effect would presently be proposed, and this would afterwards have to be confirmed by a subsequent meeting. He would ask Mr. Tolputt to read the article which it was intended to rescind.

Mr. TOLPUTT read the clause, No. 95, as follows:—"A resolution in writing, signed by all the directors, shall be as valid and effectual as if it had been passed at a meeting of the directors duly called and constituted." He added that it was one of those trivial clauses which had been copied from other Articles of Association, and there could not be the slightest objection to its being struck out.

The CHAIRMAN said he would proceed to call attention, for a few minutes, to the particular business of to-day's meeting. When they started the Tambracherry Gold Mining Company it was not started, as he said before, upon a mere tract of jungle, but upon existing estates. They had the same directors as were here to-day, and they had to deal with a large area of land, a portion of which was cultivated in coffee and cinchona, and it struck the directors from the beginning that it would be difficult to combine a thorough exploration of the whole property with thoroughly good administration, and cultivation of that part which was already planted, and they thought it would be a good plan to mark off a certain part which could be worked independently by itself. He might remind them that this company had over 6000 acres of land, which was the acreage which was taken out in the Indian deeds, but it was a known fact that Indian deeds, as a rule, covered more acreage than they were stated to contain. Of these 1500 acres had been planted with coffee and cinchona. Some were separate estates lying independent of others, and others were unappropriated, and it struck the directors from the beginning that with only 40,000*l*. of capital to work with they would not be able to get much further with it. They had to take care on the one hand not to exceed their powers, and then be compelled to ask for additional capital; and on the other hand the shareholders might complain that the directors did not develope the property fully, and simply dug in a corner and put down a few stamps. The directors, therefore, decided that if it could be done they would mark off a portion of a particlar reef, called the Cootacovil Hill, and see what could be arranged with regard to disposing of it. Therefore, in March last the directors communicated with Mr. Harvey, who had finished his labours in connection with two influential companies, and instructed him, by telegram, to go to the company's estate and arrange for the marking off and setting off for the working of a separate company of the Cootacovil Hill. This Mr. Harvey had done, and had brought back plans made by Mr. Moon on the spot, and the whole thing was in a position to bring before the public in a few days. No doubt many investors in gold mines might have thought it rather a risky thing to do, to take so much for granted as to what the real yield would be, but the telegrams received within the last few days from the Indian Gold Mines Company showed that they were getting every day more and more out of the region of uncertainty and into the region of actual fact, and he hoped that in a short time they would hear of similar good results from some others of the more advanced Indian gold mines, and he hoped also that this company would lose no time in getting forward as rapidly as possible. (Cheers.) The directors proposed to ask the sanction of the meeting to sell that portion of the Cootacovil Hill which had been marked off, with water-power, river frontage, and sufficient forest, to a separate company, to be formed immediately, with a capital of 100,000*l*. Now, what was to be done with the purchase money which was to be received by the Tambracherry Company from the Cootacovil Company? The directors were certainly in doubt about it. They had consulted their lawyers, who had consulted counsel, and counsel stated many things which it would be difficult to understand, but the directors saw very clearly that they could not immediately pay away as dividend that which was part of their property, unless they could give some guarantee and undertaking by competent and independent persons that the increased value of the holding will compensate for the amount they were going to pay away. But it was the feeling of himself and co-directors that whatever they did they would, for the present, lock up as reserve the number of shares they took in payment. The outside quantity of shares they were allowed to take by law was one-third of the company's capital, which was 33,000 shares of 1*l*. each; if those shares were kept in a safe it would both benefit the new company and also this company, who would be able to realise them if they went to a premium. However, that must be a matter which must be left to the subsequent deliberation of the board. The intention of the directors at present was certainly to pay a dividend as soon as it could be done to the shareholders of the Tambracherry Company out of the cash which they would receive from the new company. There was another question which somebody might ask, and that was with regard to the deeds, and whether the property was so entirely in the hands of the company that they had nothing to fear in the future? Here, again, he could give the company the assurance that the property was in perfect order, and that the latest executed deeds were on the way home from India, and that the transfer by the Tambracherry Original Coffee Company to the Tambracherry Gold Company was duly executed, and had been sent off to India to be registered. So as regarded the property they had at present, and which they might deal with in the future, the shareholders could rely upon it that everything was in perfect order as regarded mining, surface, and other rights. (Cheers.) He did not want to draw comparisons between this and other companies, but he might point out that it was one fortunate circumstance that this company had been previously in existence as a coffee company; and, consequently, they had been enabled to carry out all these arrangements in a more economical way, whereas other companies had been obliged to issue fresh capital to purchase mining rights; this company possessed those rights. There was a question which had been asked, and it was this—an old Indian planter had said to him, "You are not going to neglect the coffee and not let sleep the cinchona?" His reply was, "My dear friend, certainly not," and went on to point out that one reason why they started the Cootacovil as a separate company was that it would leave the minds of the directors more at liberty to attend to those portions of the estates which were planted with coffee and cinchona. Every mail the directors received information from Mr Moon, who was at present in charge of the company's estates, and who was getting on very well with the work of exploration, which would be heavy. The work was sufficiently advanced to show that there were enormous quantities of quartz at surface, and they hoped to trace it lower down. He went on to give some details regarding the cross-cuts and other work which was being executed on the Charlotte, Culloor, and Annette, and other portions of the estate. He said there had been a good deal of prospecting going on, and many distinct outcrops had been discovered, and he hoped in a short time, when the works were sufficiently advanced, the directors would be able to place before the shareholders the result of that work, and he hoped it would prove as satisfactory in the future as in the beginning. (Cheers.) He thought he had now touched upon all points which required any comment, but he or Mr. Harvey should be happy to answer any questions which any shareholder might wish to put.

A SHAREHOLDER said perhaps he might be allowed to ask one or two questions. He had perfect confidence in the wisdom of the board, but it had struck him and one or two other gentlemen sitting near him that they were selling the very "plum" of the whole property. The other discoveries apparently were great uncertainties, but the Cootacovil seemed to be a certainty; therefore, he would ask whether it would not be better for the company to work the Cootacovil property themselves, particularly after the satisfactory reports which had been alluded to, rather than part with it, and trust to other reefs, more particularly when they bore in mind the difficulty of dealing with the 60,000*l*. odd.

Mr. STAPLES said that as the properties were so extensive there must be a continuous issue of capital, and it occurred to him that, instead of keeping the shares as a reserve fund the more satisfactory way would be to distribute them amongst the shareholders. (No, no.) The effect would be that if they asked for a subscription of 100,000*l*., of which 33,000*l*. belonged to this company, they could subscribe for the other 66,000*l*., which would lessen the cost all round. If this were done it would get rid of a great deal of the objection of the hon. proprietor who had sat down.

A SHAREHOLDER asked whether in disposing of the mining rights the directors could not retain the surface of the land for the cultivation of coffee and cinchona? The surface of the land was very valuable, and the land taken by the mining company could not be all used for the purposes of mining. He gathered from what the Chairman had said that if this company proved a success (which he had no doubt it would do) it was proposed to start other companies; and, therefore, he would press upon the minds of the board the desirability of keeping as much of the surface of the land as possible for the purposes of coffee and cinchona cultivation. (Hear, hear.) He would also ask whether the directors had made any preparations for sending out the machinery? They were on the eve of the south-western monsoon, and unless the machinery was got into place at once they would not be able to send it up for many months. He also asked whether the directors intended to keep at the mine a gentleman thoroughly conversant with mining?

The CHAIRMAN, in reply to the first speaker, said they did not propose to sell the whole reef; but they proposed to sell 1200 yards, and that was not at all the whole reef. In reply to the second speaker, it was perfectly true that when they issued new shares they had no right to issue them to shareholders in preference, because the Stock Exchange Committee only recognised a company which had been offered to the public; but every shareholder was at liberty to subscribe, if he wished to do so, in proportion to his holding for shares in such new companies, and it stood to reason that in the allotment of shares the Tambracherry shareholders would not fare worse than anybody else. (Cheers.) As regarded the division of the shares that would be done at once if it could; but that was a matter which they must leave to the lawyers, and if they advised that it could be done it should be done. In reply to a further question, the CHAIRMAN said there were about 100 acres on the Cootacovil Hill under cultivation.

A SHAREHOLDER: What do you propose to do with that? Do yot sell it with the mining rights?——The CHAIRMAN said it was intended to make an arrangement with the Tambracherry Company for the ingetting of this coffee. It was also intended that the new company should have the same board as the Tambracherry Company, so there would be unity of action and saving of expense. The board wish to economise labour by dividing it as much as possible. (Hear, hear.) With respect to the machinery Mr. Heneage Taylor, of the firm of Messrs. Taylor and Sons, was present, and would be able to give full information. The directors had ordered two elephant stamps from the Thorneycroft Company, which they had seen at work at Millwall Docks, and also a small portable engine. These would be ready in a short time, and would be put to work as soon as possible. It was perfectly true that the monsoon was approaching, and they would not be able to land them till October; but, when once landed, there would be not difficulty in getting it up to the mine, as the ghaut was a good one, and the roads were good. But the small battery would be available to put in quartz to be tested, which they wished to test on a scale on 10, 20, and 30 tons.

Mr. C. J. HARVEY, in response to a general call, next addressed the meeting. In reply to the remark of the shareholder that in selling the Cootacovil property they were parting with the plum, he could only say that so far as his examination went at present it certainly was a plum, but that was no reason there should not be other equally good plums. In March last, as the Chairman had stated, he examined the property, and laid out this estate with the view to dispose of it. He had made the boundaries as clear and well defined as possible. The line of reef was due north and south, and he believed it would be found to extend through the whole of the company's estate. Certainly, from the indications, he believed the reef ran through the whole property, which was something about 2 miles. There were admirable facilities for working the reef; they had ample water-power; an adit would drain the hill to the depth of 300 ft., so there would be no pumping for years till that depth was reached; the materials could be easily conveyed to the mine and the metal from it; the fall of the water was equal to working 20 heads of stamps, and eventually, when required, they could work 20 more hends by constructing a dam about half-way up the Charlottee river. The reef was 5 ft. thick, and he estimated the return at 10 dwts. per ton; so he endorsed the remark that they had a pretty plum, and he believed that if fairly and honestly worked it would prove a great success. (Cheers). Referring to a sample which had been sent home and assayed in his absence, and which had produced 4½ ozs. per ton, he said the question had arisen in the minds of many gentlemen in the city how that sample could have produced such enormous results when his own estimate was 10 dwts. The explanation was simple enough. His own estimate was obtained by actual working, the other by assay results. He must caution them against assay results, which were fallacious, and would tend to mislead. Possibly in the sample sent home there was a grain of gold over and above what he obtained, which would account for the excessive return, but his return was obtained from crushing by hand and washing by hand, which he thought was the best means of getting a fair average. He need scarcely remind them that 10 dwts. per ton was a very fine yield. From what he saw on his last visit to the reef he was inclined to think it would exceed that, but he liked to be on the safe side. (Hear, hear). The sample which he washed was taken partly from the hanging-wall, partly from the footwall, and partly out of the middle, which was washed together, and he thought that was the only fair way to take it. The stone taken on that basis would give, to the best of his belief, by mechanical process, 10 dwts. per ton, and he believed it would give over. In giving an estimate of cost, they must bear in mind that if it cost 15s. per ton to treat 20 tons it would cost 10s. 6d. per ton to work 40 tons. Therefore, he could not lay down a basis until the machinery was in full work, but he thought that, with 20 heads of stamps, the cost would be only 3½ dwts. per ton.

A SHAREHOLDER: How many working days do you expect to have in the year?——Mr. HARVEY: From 250 to 270.

In reply to a further question, Mr. HARVEY said he thought there would always be an ample supply of water.

Mr. STAPLES asked whether there was any gold in the sand of the river?——Mr. HARVEY said there was no sand in the river—nothing but bed rock. The river was so rapid, and the water swept down with such force, especially during the monsoon floods, that nothing could lodge, and the water carried everything with it.

A SHAREHOLDER said there was a great deal of work to be done, both mining and agricultural; no doubt Mr. Moon was a very good man, but he believed Mr. Moon's duty was to superintend the cultivation of the coffee. Was Mr. Moon also able to look after and develope the mineral resources, or did the board propose to appoint some one else?

The CHAIRMAN said that of course the board proposed to send out a competent mining staff as soon as the necessity arose, but Mr. Harvey said that Mr. Moon was so good an engineer and worked so well, that he could be safely left in charge of mining operations till such time as it was necessary to put up the machinery. No time was being lost. Mining tools had been sent out and arrived in India two months ago, and Mr. Harvey declared them to be satisfactory with one little exception. Whatever arrangements were made for future working, the directors would take care that a competent mining staff was sent out. In the meantime the board was providing for the staff by putting up sufficient buildings. There was one station nearly finished, and corrugated iron roofing had been sent out, which had arrived at Calicut. In fact, the Tambracherry company had neglected nothing in the way of preparation; the new company would take up everything, so they hoped to gain six months upon some previous companies.

Some further conversation ensued of a desultory and unimportant character, after which the CHAIRMAN formally moved that "Article No. 95 of the Articles of Association be cancelled."

Mr. TOLPUTT seconded the resolution, which was carried unanimously.

On the motion of the CHAIRMAN, seconded by Mr. KNOWLES, the second resolution given above was then unanimously passed—namely, sanctioning the sale of the Cootacovil Hill to a separate mining company.

Mr. GILLESPIE said that, as an old and large shareholder, he had very great pleasuse in moving a cordial vote of thanks to the Chairman for his conduct in the chair, and to the board of directors for the able way in which they had managed the affairs of the company up to the present time. (Cheers.) He was in the country for five years, and might say he knew every acre of the estate. As he had said, he was a very large and very old shareholder, and he had no hesitation in expressing the opinion that this was one of the most satisfactory portions of the Wynaad El Dorado. (Hear, hear.) He spoke as a director of one or two other companies, and he heartily wished for the success of this company. He believed it had as good a chance, and perhaps better, than many other companies for many reasons. He was delighted to find that the cultivation of coffee and cinchona was not to be neglected for its more shining competitor; he sincerely hoped that the coffee and cinchona would pay all the expenses, so that the gold would be available for dividends. (Cheers.) Under the guidance of the present able board, and with Mr. Harvey, who had the reputation of not being an over sanguine man at the helm, he did not see why this portion of the Wynaad El Dorado should not be as remunerative as any other. (Cheers.)——Mr. STAPLES seconded the motion, which was put and carried, and the CHAIRMAN having acknowledged the compliment the meeting broke up.

SOUTH CARADON MINING COMPANY.

At a general meeting of shareholders, held at the mine on Tuesday (Mr. Richard Hawke in the chair), the accounts for the first, second, and third months showed a profit of 33*l*. 9s. 8d., and the balance of 1837*l*. 15s. 2d. carried to the credit of next account.—It was proposed by Mr. R. KITTOW, seconded by Mr. T. WILLIAMS, and carried unanimously—"That a special meeting be held on June 20 for the purpose of considering the adviasability of working the eastern ground, and the best means to be adopted for doing so In the meantime Messrs. Holman and Rule be deputed from this meeting to see Capt. J. S. Hawker with the view of securing the piece of ground to the east of Foredown to be added to this sett."——The following report was presented to the meeting:—

June 7.—Our mine is looking just as it has for some considerable time, enabling us to make our usual returns of good quality ores. The boring machine recently purchased has been set in operation, and is working well, greatly facilitating the rate of driving.—JOHN HOLMAN.

TREBARTHA LEMARNE.

A meeting of shareholders was held at Callington on June 2, when the agents reported a splendid discovery of tin; and it was resolved to divide the mine into 12,000 shares, and make a call to carry on operations. Subjoined is the agents' report:—

Since the last meeting of shareholders we have put up a deep cutting from the low ground with a view to unwater the old men's workings, and from which we let away the water about 25 ft. below the surface, and there found the workings to be from 3 to 4 ft. wide. We found that the original workings were much deeper, and from the nature of the ground, and the character of the stuff lying about them, together with the large and extensive workings, we conclude that immense quantities of tin must have been raised and sold from this lode. We have also driven an adit level some distance further west into the hill, about 12 fms., and intersected what we believe to be the same lode that the ancients worked on; and from the distance driven on it, about 8 ft., we have broken as fine a pile of tinstuff as can be seen at such a shallow depth—3 fms. below surface. This together with the extensive workings before referred to, made by the old men, leads us to believe that when this mine is fully in work and properly laid open it will prove to be one of the best and most profitable mines in East Cornwall; in fact, we are of opinion that it will be on the north-east side of this the Caradon Granite Range what other mines are on the south. We also think it proper to call attention to the fact that there is an almost unlimited supply of water-power for dressing purposes, and, therefore, looking at all these advantages with the great discovery of tin now made, and the splendid situation of the mine, we must congratulate the shareholders in getting hold of such a property.—W. SKEWIS, J. GIFFORD.

WHEAL SISTERS.—At the meeting, on June 1, the accounts showed a debit balance of 2369*l*. 8s. A call of 5s. per share was made. The agents reported upon the various points of operation, and, in conclusion, say the Trencrom part of the mines never looked so well as now, the bottom being the best part thereof. We have had no improvement in the Wheal Mary part since last account meeting, but we are expecting an improvement in the 230 west shortly, having driven through a long piece of tin ground in the 220 west, beyond the present 230 end. We are pleased that we have reached the north part of Kitty sump lode in the 200 crosscut, south of Wheal Mary engine-shaft, from which we shall now make returns of tin; and provided we get a lode of equal value in the 200 to what we have in the 180, on the same lode, the mines will soon be in a good position. We have sold 131 tons 9 cwts. 1 qr. 5 lbs. of black tin since the last meeting. We have 500 persons employed in the mines.

KILLIFRETH.—At the meeting on June 3 (Mr. John Tregoning in the chair) the accounts showed a debit balance of 1357*l*. 19s. 10d. A call of 5s. per share was made. Captain John Michell reported that the mine, especially around Hawkes' shaft, is opening up very favourably, and with little further development they believe they will have a productive and profitable mine. It having been stated to the meeting that in consequence of the continued indisposition of Capt. Joseph Paull, which prevents his attending to the underground department, it would be to the general interest of the shareholders if a resident underground agent were appointe. It was resolved that the following be nominated a committee for making the said pointment—Messrs. W. Nicholl, C. Bawden, and T. R. Mills, together with the purser and manager.

WATSON BROTHERS' MINING CIRCULAR.

WATSON BROTHERS

MINEOWNERS, STOCK AND SHARE DEALERS, &c

1. ST MICHAEL'S ALLEY, CORNHILL, LONDON.

A plan for subdividing D'Eresby Mountain shares has been submitted to the directors, and urged upon them by the majority of shareholders—so that proposals to carry it out will be submitted to the general meeting. Each present holder of one share will get 25 shares, and these, it is said, would more readily command 2*l*. or 3*l*. per share than the present share 50*l*. Hitherto the difficulty the directors have felt in subdividing has been the fact that, although the 1536 shares of the company are all of equal value in reality, the last issue as a bonus to the holders was at 5*l*. per share; and, therefore, to subdivide that into 20 or 25 shares of 1*l*. each might at some future time render the holder liable to pay up the balance in cash. To avoid this and all future liability the cash paid-up capital has been assimilated, and the 25 shares given in exchange, fully paid up, for 1-1536th will represent the actual cash paid. Thus, the company will be in 45,000 shares of 10s. each, fully paid up, and this will admit of a large reserve capital. This plan has been submitted after mature consideration by a shareholder learned in the law; and we, as among the largest shareholders, hope to see it carried out. To get a regular market in the shares, particularly on the Stock Exchange, it is necessary to have a large number of shares, so we are told.

The No. 6 level, which was cut into so rich, and caused a good demand for shares at 50*l*. each, has not since turned out equal to expectations. It was necessary, however, to cut entirely through the lode, which took some weeks to do, and then drive upon it to get under the rich ore in the sump from No. 5, and this is now being done.

Tresavean we find is to be reworked for tin, and, judging from what other mines in the district have done after their transition state from copper to tin—and which we have often described—the mine should be a good spec, but will require time and a very large outlay. Writing of the mine in 1842 Mr. Watson, in the Compendium of British Mining, said—"Tresavean Copper Mine, in Gwennap, was once or twice abandoned as a failure; but was at length taken up by a party who persevered in exploring it, and with an outlay of little more than 1000*l*. succeeded in discovering its wealth, and its continued richness offers an extraordinary instance of a fortunate adventure. The mine is a very dry one, situate on the slope of a hill, and requiring comparatively little machinery to draw the water from it; the lodes are principally in granite, and become profitless when they quit it, and pass into the slate (killas). Tresavean has left a profit of more than 800,000*l*.; the profits for the last five years have averaged 30,693*l*. a year, the working cost being between 3000*l*. and 4000*l*. per month. There are 1300 persons employed, and the machinery is valued at 60,000*l*. During the last eight years—from June, 1834, to June, 1842, there have been raised and sold from the mine 92,211 tons of ore, yielding 610,893*l*. 19s. 6d. The mine is held in 96 shares. There are several steam-engines at work, and the new engine-shaft lately completed is 276 fms. deep from the surface, and it took two years and two months sinking, by 12 sets of men rising and 12 sets sinking—in all 120 men. On this shaft a steam-engine, with a cylinder of 86 in. diameter, has been erected, which works nine lifts of pumps, and lifts 36 tons 6 cwts. per stroke. The weight of rods and sets-off in the shaft is 59 tons 13 cwts. 2 qrs.; the main beam, with gudgeons, bearers, and connections, 50 tons; eight plungers, 7½ tons; four balance-bobs, 60 tons; four balance-boxes, 80 tons; 75 fms. of flat-rods underground 11½ tons—total weight of engine when in motion, 353 tons 16 cwts. The price delivered on the mine was 4125*l*.; size of shaft, 12 ft. by 6 ft.; cost sinking, 20,000*l*."

The principal agent and discoverer of the mine was Capt. Thos. Teague, and the principal shareholders when we used to deal in the shares (96ths) at 1000*l*. to 1200*l*., were the Messrs. Williams, of Scorrier.

A clerical error occurred in our last. In the last line but two in the article on Crown Leases for "remember" read "refer" to it.

Glycerine has risen to 140*l*. per ton, and, as dynamite has been made from glycerine hitherto at a price from 30*l*. to 60*l*. per ton, this rise is somewhat against cheap dynamite. Glycerine itself is a very mild inoffensive oil obtained chiefly in the manufacture of soap; but, washed with nitric and sulphuric acid it becomes a dangerous explosive.

Our correspondent's fears that the price of D'Eresby Mountain shares may be reduced by the division is, we think, quite groundless. It is generally supposed that the price will be much better. The amount actually paid up has nothing to do with market price. Thus shares with 5*l*. paid have been sold at 50*l*. Soon after the lode was cut into rich, at the No. 6 level, there was a great demand at 50*l*. per share, and only lately one gentleman who strongly advocates the present division, bought 50 shares at 40*l*. each, in addition to a large interest he previously held. When the division has been carried out, and each holder of 1 share gets 25, we fancy they will be worth

2l. to 3l. per share, and much higher if a rich lode is met with in No. 6.

The Crown property managed by the Woods and Forests is quite distinct from that of the Duchy of Cornwall. As lessees of the Duchy we have always been treated kindly and considerately.

At East Blue Hills the whole of the ground found in the bottom of the 30 will pay to work for tin.

The Prince of Wales has sold a small parcel of tin; the best of it, nearly 2 tons, at 50l. per fathom. The smalls sold at 37l. 10s. per ton.

We hope soon to have a sale of ore at Carnarvon, and to make regular returns.

A good deal of attention is being paid to Parys Copper, and there may be a great rise some day. Look at the prospectuses of some of the new mines introduced to the public at 40,000l. and 50,000l. premium; and then look at Parys. The great open cast, or quarry of copper, yielded 5,000,000l. We have been several years bringing up a level, the 90 south, to get under this great deposit, and it was not till lately, owing to engineering difficulties, that we could employ boring machinery. We are now under the open cast, driving at double speed, and any day may come into a body of ore. The mine is in 45,000 shares of 1l. each, fully paid; but only about 30,000 have been issued, so that it is now selling at a low price; much less, in fact, than the premiums charged on new things with not one-tenth of its prospects

PROVINCIAL STOCK AND SHARE MARKETS.

CORNISH MINE SHARE MARKET.—Mr. M. W. BAWDEN, Liskeard (June 9), writes:—The mining market continues exceedingly firm, and most shares fully maintain their prices although the holidays have slightly retarded the general routine of business. Phœnix United and South Frances in strong demand at advanced prices. At South Caradon Mine meeting held on Tuesday the accounts showed a profit on the three months' working of 33l. 9s. 8d. A large and influential party of gentlemen as a deputation from London, Liverpool, Glasgow, and Manchester, visited Phœnix United Mines on Tuesday, in connection with their becoming large shareholders after its reconstitution from the Cost-Book to the Limited Liability Company, and made a thorough examination of the sett and extensive workings with the excellent machinery and plant at surface in full operation, and expressed themselves highly pleased with their inspection. Subjoined are the closing quotations:—Bedford United, 2⅛ to 2¼; Carn Brea, 24 to 24½; Cook's Kitchen, 13¾ to 14; Dolcoath, 56½ to 57; Devon Consols, 10 to 10¼; Devon Great United, 1¾ to 2; Drake Walls, 1 to 1⅛; East Caradon, ⅞ to 1; East Crebor, ⅜ to ½; East Herodsfoot, 1¼ to 1½; East Pool, 37½ to 38; Gawton United, 1 to 1⅛; Glasgow Caradon, ⅞ to 1; Gunnislake (Clitters), 3½ to 3¾; Herodsfoot, ⅝ to ¾; Hingston Down, 1¼ to 1⅜; Marke Valley, 1½ to 1⅝; New West Caradon, ⅜ to ½; North Herodsfoot, ½ to ⅝; Old Gunnislake, ½ to ⅝; Phœnix United, 5½ to 6; Prince of Wales, ¾ to ⅞; South Caradon, 47½ to 50; South Condurrow, 9¼ to 9½; South Crebor, ⅝ to ¾; South Crofty, 10 to 10¼; South Devon United, 2½ to 2¾; South Frances, 15½ to 16; Tincroft, 17 to 17½; West Basset, 16 to 16½; West Caradon, ⅝ to ¾; West Frances, 13 to 13½; West Mary Ann, ⅞ to 1; West Peevor, 15 to 15½; West Phœnix, 1¼ to 1⅜; Wheal Agar, 14¼ to 14½; Wheal Basset, 5¼ to 5½; Wheal Crebor, 3⅝ to 3¾; Wheal Grenville, 8¼ to 8½; Wheal Hony and Trelawny, 2¼ to 2½; Wheal Kitty, 2 to 2¼; Wheal Jane, ½ to ⅝; Wheal Peevor, 16½ to 17; Wheal Uny, 2⅞ to 3.

— Mr. JOHN CARTER, mine sharedealer, Camborne (June 9), writes:—The share market is steady at present. South Frances, Wheal Peevor, Cook's Kitchen, West Poldice, and West Wheal Kitty shares have improved during the week; while Dolcoath, East Pool, and Pedn-an-dreas have been offered at lower prices. The tin standards are advanced to 87s. and 88s. to-day—a rise of 2s. Subjoined are the closing quotations:—Blue Hills, 3 to 3¼; Carn Brea, 24⅛ to 24⅜; Cook's Kitchen, 13½ to 14½; Dolcoath, 55½ to 56; East Botallack, 1¼ to 1¾; East Caradon, 1 to 1¼; East Pool, 37¾ to 38; Mellanear, 4½ to 5; New Cook's Kitchen, 6 to 6½; North Busy, ⅜ to ⅝; Penhalls, 1⅝ to 1⅞; Phœnix, 5 to 5¼; Pedn-an-drea, 4 to 4¼; Santa Gertrude, 170 to 175; South Condurrow, 9½ to 9¾; South Caradon, 55 to 60; South Crofty, 10 to 10½; South Frances, 15⅜ to 15⅝; Tincroft, 17 to 17½; West Basset, 16¼ to 16½; West Frances, 13½ to 14; West Peevor, 15½ to 15¾; West Poldice, 4⅜ to 4⅝; West Seton, 20½ to 21½; Wheal Agar, 14½ to 15; Wheal Basset, 5⅛ to 5⅜; Wheal Grenville, 8 to 8¼; Wheal Jane, 6s. to 8s.; Wheal Peevor, 17¼ to 18¼; Wheal Kitty, 2⅛ to 2⅜; South Tolcarne, 1½ to 1⅝; Wheal Uny, 2⅜ to to 2½; West Kitty, 4¼ to 4½; East Blue Hills, 10s. to 12s. 6d.

— Mr. J. H. REYNOLDS, stock and share broker, Redruth (June 9), writes:—During the week all the leading shares have been in request, and prices mostly better. Carn Breas, South Frances, Wheal Agar, and West Frances in demand at higher rates. Tin standards advance this day 2s. per cwt. Subjoined are closing quotations:—Blue Hills, 3 to 3¼; Carn Brea, 24 to 24¼; Cook's Kitchen, 13⅞ to 14⅛; Dolcoath, 55½ to 55¾; East Pool, 37¾ to 38; Gunnislake (Clitters), 3½ to 4; Marke Valley, 1¼ to 1½; Mellanear, 4½ to 5; New Cook's Kitchen, 6¼ to 6½; North Busy, ½ to ¾; North Herodsfoot, 10s. to 15s.; Pedn-an-drea, 4¼ to 4⅜; Phœnix, 5 to 5¼; Penhalls, 1¾ to 2; South Caradon, 55 to 60; South Condurrow, 9½ to 10; South Crofty, 10 to 10½; South Frances, 15¼ to 15½; Tincroft, 17¼ to 17½; West Basset, 16¼ to 16½; West Frances, 13¾ to 14; West Peevor, 15¾ to 16; West Poldice, 4⅜ to 4⅝; West Seton, 20 to 21; West Kitty, 4⅜ to 4⅝; Wheal Agar, 14¾ to 15; Wheal Basset, 5 to 5¼; Wheal Boys, 2¼ to 2½; Wheal Comford, 3¼ to 3½; Wheal Grenville, 8 to 8¼; Wheal Jane, 10s. to 15s.; Wheal Jewell, 10s. to 15s.; Wheal Kitty, 2¼ to 2½; Wheal Peevor, 18 to 18½; Wheal Prussia, 1¾ to 2; Wheal Uny, 2¼ to 2½. Cornish Bank, 24½.

MANCHESTER.—Messrs. JOSEPH R. and W. P. BAINES, sharebrokers, Queen's Chambers, Market-street (June 9), write:—Year by year the holiday of Whitsuntide seems becoming more and more observed and the period elongated. The late fine weather has contributed in no small degree to this feeling, and though the weather since Sunday last has been very cold for June it does not appear to have deterred many from taking the holiday intended. The change in the temperature has in some degree depressed the figures in railway stocks, presumably for its being expected to influence holiday traffics unfavourably, but we question if it will make much if any difference in this neighbourhood. Further remarks on market movements would be out of place, as the all-pervading idle influence restricts business to such an extent that the markets may almost be called entirely devoid of movement.

SCOTCH MINING AND INDUSTRIAL COMPANIES SHARE MARKETS.

STIRLING.—Mr. J. GRANT MACLEAN, sharebroker and ironbroker (June 9), writes:—During the past week there has been less business, owing to the Whitsun holidays intervening, and prices are in some cases lower. Expectations, however, are still held of favourable harvests; and considering the easy state of the money market, along with the more cheerful tone of trade inspired by the recent improving Board of Trade returns, it appears prices are more likely to improve.

In shares of coal, iron, and steel companies the movements for the week comprise advances of 2s. 6d. each on Bolckow, Vaughan (12l. paid), 2s. in Clyde Coal, 1s. 3d. on Marbellas, and a smaller extent on Benhar Coal; but Ebbw Vale and Nant-y-glo and Blaina (preferred) are each reduced 10s. per share; Monklands, 3s.; Scottish Australians, 2s. 6d.; and Monkland (preference), 1s. 6d. In the Scotch pig iron market the price of warrants improved from 45s. 7½d. to 46s. 9½d. There has been a brisker business doing, but owing to the increasing prices stocks cannot rise much. It appears the immense total of 1,287,000 tons is now in stores and makers' yards in Glasgow and Middlesborough districts. The Steel Company's workmen have offered to resume work if allowed to do so to the company direct, and not through contractors, so that the strike may be considered at an end. Benhars have been sold at from 8s. 9d. to 10s. Altami are at 40s.; Bilson and Crump, 52s. 6d.; Bolckow, Vaughan, 27 to 27½; Cardiff and Swansea Coal, 40s.; Chapel House Colliery, 10s.; Chatterley Iron, 6 to 7; Clyde Coal, 74s. to 76s.; Ebbw Vale, 8¼ to 8½; Henry Briggs (A), 10 to 11; John Bagnall and Sons, 7s. 6d.; Lofthouse Colliery, 40s. to 60s.; Marbella, 6¼ to 6⅜ (been 6); Monkland Iron and Coal, 12s. 6d. to 13s. 6d.; ditto (preference), 23s. to 25s.; Nant-y-glo and Blaina (preferred), 34½; New Sharlston Colliery, 70s. to 90s.; Omoa and Cleland, 24s. to 26s.; Onllyn and Dulais, 30s. to 40s.; and Steel Company of Scotland, 10½.

In shares of foreign copper concerns prices have generally improved. Tharsis have advanced 2l. 16s. 3d. per share; ditto, new, and Rio Tinto, each 10s., and Huntington 2s. 6d. At the meeting of the Tharsis Company on June 22 a dividend of 25 per cent. will be recommended, which compares with 20 per cent. for the previous year; 62,751l. is also written off, besides carrying 30,000l. to reserve fund, and 18,344l. to next year's account. The shares which had been dealt in during the week at 39l. 1s. 3d. came into good demand on this announcement, and gradually improved to 41¾, 42; Canadian Copper are at 37s. to 38s.; Huntington, 46s. 6d.; Norway Copper, 10s.; Panulcillo, 6 to 6¼; Rio Tinto, 20¾ 20¼; Yorke Peninsula, 5s. to 7s. 6d.; and ditto (pref.), 17s. 6d. to 20s.

In shares of home mines prices are firmer owing to the better tendency of the metal markets. The D'Eresby Mountain Company now propose to give every present holder of shares 25 shares of 10s. fully paid in exchange for every existing share; hitherto the capital has been expended on the Great Gorse lode, but as there are other good lodes and important points in the mine requiring development this scheme includes raising the necessary capital for that purpose. Blaen Caelen are at 21s.; Cambrian, 5s. to 7s. 6d.; Cwm Pryf, 5s; Caron, 9s.; Drakewalls, 15s. to 20s.; New East Chiverton, 15s. to 20s.; East Lovell, 40s. to 50s.; East Long Rake, 30s.; East Wheal Rose, 22s. 6d. to 27s. 6d. prem.; Fortescue, 12s. 6d.; Gover Consols, par; Great Polgooth United, 14s. to 16s.; Great Wheal Polgooth, 12s. 6d. to 17s. 6d; Gawton, 21s.; Goodevere, 10s.; Herodsfoot, 10s. to 15s.; Killifreth, 5s.; Lady Ashburton, 21s.; Marke Valley, 30s. 6d.; Mount's Bay Consols, 5s.; North Molton, 5s.; North Hendre, 4 to 5; New Alfred, 20s.; New Peevor, 40s.; New Penrose, 11s. 3d.; Old Shepherds, 2s. 6d. to 5s. prem.; Pateley Bridge, 5s. 6d.; Parka Consols, 25s. to 30s.; Pant-y-Mwyn, 15s. to 17s. 6d.; Pen-yr-Orsedd, 20s.; Silver Valley, 4s. 9d.; South Condurrow, 9½ to 10; South D'Eresby, 7s. 6d. to 10s.; South Crebor, 15s. to 25s.; South Tolcarne, 25s.; Tamar, 17s. 6d. to 20s.; Tin Hills, 25s. to 35s.; United Shepherds Wheal Rose, 6s. 3d.; Walkham United, 2s. 6d. prem.; West Phœnix, 30s. to 40s.; Wheal Fortune, 30s. to 40s.; and Wheal Grenville, 8 to 8½.

In shares of gold and silver mines Richmonds are unaltered. Considerable business has been done in Indian descriptions owing to a telegram received by the Glasgow Indian Gold Company from their mining engineer that the five stamps crushing were giving a return of about 4 ozs. to the ton, which will yield great profits. The company are also increasing their capital by the issue of 6000 more 10l. shares; the quotation this forenoon is 62 to 65. Australasian mines are at 5s.; Cedar Creek, 2s. 6d. to 3s. 6d.; Chontales, 2s. to 3s.; Emma, 60s. to 70s.; Flagstaff, 7s. 6d. to 10s.; Gold Association of Canada, 17s.: Gold Hill Mines, 1s. 3d, prem.; Great Southern of Mysore, 17s. 6d. to 20s.; Indian Kingston, 1s. 3d. prem.; Indian Glenrock, 50s. to 55s.; Indian Trevelyan, 30s. to 35s.; Indian Phœnix, 30s. to 35s.; Indian Mammoth, 5s. dis.; Imperial Crown of New Zealand, 40s.; Javall, 5s. to 7s. 6d.; Kapanga, 7s. 6d. to 10s.; Mysore Reefs, 2s 6d. prem.; New Callao, 4s.; New Gold Run, 4s. to 6s.;; Nava de Jadraque, 10s. to 15s.; Pestarena United, 5s. to 7s. 6d.; Quartz Hill, par; Silver Peak, 20s. 6d.; South Indian, 52s. 6d. to 57s. 6d.; Tecoma, 3s. 9d. to 5s.; and West Frontino, 13s. 9d.

In shares of oil and miscellaneous companies the movements comprise an advance of 3s. per share on Oakbank, but Young's Paraffin have declined 7s. 6d.; Broxburn 5s., also Uphall and Walkham are each 2s. 6d. At the meeting of the Uphall Company, yesterday, the annual statement for the year ended March 31 showed a profit of 9316l.; 4000l. was written off for depreciation, and a dividend of 3½ per cent. declared on the A shares, leaving 1466l. to carry forward. An amendment was made that no dividend should be paid, but was not carried. The manager of the Dalmeny Company has joined the board of directors. The shares, which commenced at 7l. 18s. 9d., advanced at one time to 9l. 2s. 6d., but fell away to 7l. 10s. before the meeting, though they are again inclined to improve. Lawes' Chemicals are at 4¾ to 5.

YOUNG'S PARAFFIN LIGHT AND MINERAL OIL COMPANY.—The 17th annual report states the dimished profits are chiefly owing to lesser profits realised on paraffin scale, candles, and heavy oils through American competition. The amount expended upon the works since the formation of the company has been 1,021,983l., while they now stand on the books at 394,601l. The company have arranged to raise coals on the estates of Cuthil and Boghead, from which a saving of 3000l. per annum is expected. The experiments to prove certain fields at greater depths than heretofore are still progressing, and now indicate the quantity of workable shale is larger than previously known. The company propose to issue 50,000l. in debentures at 4 per cent.

EDINBURGH.—Messrs. THOMAS MILLER and SONS, stock and sharebrokers, Princes-street (June 9), write:—During the greater part of last week prices of railway stocks have been depressed. To-day there has been a slight rally, but quotations are still under those of last Thursday. Grand Trunk of Canada stock, after receding from last week's quotations, have to-day become better to some extent on the good traffic return. American stocks and bonds have declined. In banks, Bank of Scotland has risen from 287 to 292; Royal from 207 to 212; Commercial from 256 to 260. North British and Mercantile Insurance have receded from 68¼ to 67¼, and Standard have risen from 73½ to 75. In mines, Clyde Coal have improved from 73s. 6d. to 75s.; Huntington Sulphur and Copper from 45s. to 52s. 6d.; Marbella Iron Ore from 6⅛ to 6⅜. Tharsis, on the favourable announcement of the year's working, have risen from 39¾ to 41¾. Uphall Oil have declined from 8¼ to 7 and 9/16 Young's Paraffin from 10¼ to 10.

Mining Correspondence.

BRITISH MINES.

ASSHETON.—Joseph Garland, June 8: The 60 east of Boundary shaft is a little more favourable for driving; the lode is 2½ ft. wide, composed of quartz, a good deal of blende, and stones of lead ore; it is, moreover, very porous, and lets down a quantity of water. The 92 east is in hard ground; there is a little more lode coming in, now 6 in. wide, but as yet it contains no ore.

BEDFORD UNITED.—R. Goldsworthy, June 8: There is no change to notice in the 20 east and west on the Bridge lode since last report; it is still 5 ft. wide, and of the same value—20l. per fathom. Saturday next being setting and pay a full report shall be forwarded next week.

BLUE HILLS.—S. Bennetts, R. Harris, June 4: The lode in the 80 east is divided in two parts, each tinny. The 42 east end is changing in appearance as it approaches the cross-course, and the lode contains spots of tin, altogether more promising than we have seen it for some time. The 30 east end is worth 12l. to 15l. per fathom.

BODIDRIS.—H. Hotchkiss, June 8: There is no change in either cross-cut driving from Meadow shaft. The 60 east is improving for lead ore, the best part being in the sole of the level, which indicates a continuation of this run in depth.

BWLCH UNITED.—W. Northey, June 9: The 12 fm. level under adit, driving west, is laying open good stoping ground. I have placed men to timber and clear the 30 level, in preparation for laying the railroad to tram the ore stuff. I have cleared the 30 cross-cut, and placed the men to drive south. The lode in the 50, or that part which is driving on, is more compact, and is more kindly-looking than when I last advised you.—Marvin's Lode: The men have cleared the western level, and we have had a few holes blasted in the back and side, which have shown a good lode of rich lead ore. I intend to place the men to drive west under a run of ore ground, which can be seen in the Roman workings coming out at surface. In the lode in the quarry branches of good lead ore are met with, but we have not yet got into solid rock. Mr. Thomas Williams, the contractor for the new jigging-machine, was here on Tuesday last, and promised to deliver the jigger by the end of next week. The carpenters are busily taking down the 20 ft. wheel, &c., for re-erection in another place. The dressing is kept going at full speed, and all the machinery is in full work. On Thursday, the 2nd inst., the mine was visited by C. C. Marvin, Esq., a director and the secretary, accompanied by several influential shareholders. They expressed their satisfaction with the work done. Splendid rocks of silver-lead ore were blasted out from the late discovery on the Roman lode. Several of the shareholders went underground and inspected for themselves. At the request of the shareholders it was proposed that said lode should be named Marvin's Lode, as a token of respect for the great interest Mr. Marvin has taken in this mine. The large pumping-wheel, which is working in a most satisfactory manner, was also named the Ellen's Wheel, as a token of respect for Mrs. Marvin.

CALLINGTON CONSOLS.—Thomas Gregory, June 8: We have completed the new skiproad in Foakes's engine-shaft from bottom to surface, and are now rising the top of the shaft, fixing door thereto, &c., preparatory to sinking. The lode in the 45 east is showing strong indications for an improvement, and is still producing both tin and copper ores of a good percentage. We have commenced sinking a trial shaft on the silver lode (which is about 2 ft. wide) near the Lady Ashburton Mine boundary; so far as opened on the lode presents near the surface a very good appearance, being composed of gossan, quartz, capel, mundic, and silver ore.

CARNARVON COPPER.—John Roberts, June 7: In the 90 end we drove nearly 3 fms. last month, and have now reached the lode of the sump at the 80, and let down the water from that place. We have about 3 fms. more to drive to get under the sump, which we hope to complete this month, and then we shall commence rising towards it, and we expect to get a communication in about six weeks. We took down a part of the lode in this end this week, which is improving, and we shall be disappointed if we do not get into a good bunch directly. In the sumps we have sunk from the commencement by this company about 2½ fms., and have raised about 8 tons of 12 per cent. ore. The last two or three weeks the lode has not been so good as it was, but it appears now to be taking a turn to its natural direction, which will no doubt make the lode better than we have seen it; we have about 6 fms. more to sink to reach the 90. At surface we have covered over the water-course from the crusher wheel, and made a new floor for dressing the copper after it is crushed, and we have also put down a new floor to the ore bin.

COED-Y-FEDW AND PANT-Y-BUARTH.—R. Prince, June 9: The lode in the 107 is opening out in a very promising manner, and is composed of blende, spar, and shale, the latter containing small pellets of lead; judging from these and other promising indications, I expect that we shall, after driving a few yards further, cut into a good course of ore. The tributers in the back of the level have cut into soft ground very favourable for the deposit of lead. In the loose stuff which has fallen from the roof several large stones of lead have been found. I am very hopeful that I shall be able to send you good news in my next report.

COURT GRANGE.—J. Pell, June 9: Saturday last being our pay and setting day the following bargains were set:—To six men, to drive 14 and 30 east, with boring machines, at 5l. 10s. per fathom, bargain taken to pay all cost; to stope back of 30 with boring machines, at 55s. per fathom, paying all cost; this stope is 12 fms. long, worth 12 cwts. per fathom. Six men on tribute, at 8l. 10s. per ton, paying all cost in driving, dressing cost, to stope over 30, east of footway shaft. Six men on tribute, at 9l. per ton, paying all cost, including dressing cost, to stope over 14, west of footway shaft. Two men to rise, at 3l. 5s. per ton, back of 45, east of engine-shaft; this rise is worth about 9 cwts. per fathom, and will lay open a large section of ground which is standing nearly up to the 30, except a small part stoped from a shallow winze which yielded about 15 cwts. to the fathom. Two men on tribute, at 9l. per ton, to stope back of 45, east of engine-shaft, paying all cost. The ore sold to Messrs. Neville, Druce, and Co., Llanelly, this week produced 14l. 1s. per ton. All our reservoirs and leats, with machinery and plant, are in good order, with plenty of water, doing capital work. The only point to notice is the 30, which is slightly improved, and will lay open a good stope, and is looking very promising for further improvement.

CROOK BURN.—J. Craig, June 3: We have now risen upwards of 2 fathoms from south cross-cut, and when up 6 ft. more will break into the vein. We have a strong string of carbonate of lime bearing nearly north and south in the north cross-cut, but is without any change; the ground is not unfavourable to drive, and if our engine was ready for winding we could make considerable better progress, as it at present takes the men nearly one-half the time to draw the work. The men will complete cutting out ground work, and putting in ballast for stone pillars to-morrow, and commence walling on Monday morning.

CRAIGNANT.—Andrew Williams, June 8: The 24, east and west of engine-shaft, has been secured, and the required preparations have been made to put four stopes to work in the back of it in a lode varying in value from 15 cwts. to 25 cwts. of lead ore per fathom. The 12 west is still worth 1½ ton of lead ore fathom. Two stopes could be let to break ore in the back of this level in a lode producing on an average 1 ton of lead ore per fathom. In the 12 east the men are now engaged in putting in a stull over the level in order to prepare for stoping this part of the mine also, which contains lead in paying quantities. As soon as the dressing apparatus are constructed a regular monthly sale of ore could be commenced with at once. All the machinery on the mine is in an excellent condition and is doing good duty.

DENBIGHSHIRE CONSOLIDATED.—R. Prince, June 9: The lode out of the 152 north cross-cut presents a very cheering appearance, and is now worth fully 1½ ton of lead to the fathom. This course of ore is certainly the best that we have met with in the mine. It has been proved for about 30 yards in the driving of the level, and the yield of ore keeps steadily improving. The stope in the back of the level is worth about 15 cwts. to the fathom. The stope below the 112 main lode on the No. 2 course of ore has yielded some very nice ore since our last report, and is now worth 1 ton to the fathom. The No. 2 rise does not look so well for lead; the lode still keeps about 6 ft. wide, but the ore is more scattered. Dressng operations are going on regularly.

D'ERESBY MOUNTAIN.—John Roberts, Wm. Sandoe, June 8: The No. 6 is quite as good as reported last week. We reported then ½ ton to the fathom, but the lead is going into the side of the level, for what width we do not yet know, and can only value it for the width we are carrying. Particulars of the stopes with other things shall be explained in our report for the meeting next Tuesday.

DEVON COPPER AND BLENDE.—W. Skewis, June 2: The engine-shaft is now cleared 6 fms. below the 50. The ground seems to be much firmer, and we hope, therefore, now to make greater progress. The 50 is cleared 37 ft. west of Derrick's shaft. We have a good stope working in the bottom of the 40, worth for copper and blende from 16l. to 20l. per fathom. Next week I hope to be in a position to set some pitches to work in the 50.

DEVON GREAT CONSOLS.—Isaac Richards, June 9: Wheal Josiah: In the 144, east of the Court House shaft, on the new south lode, the lode is 2 ft. wide, consisting of capel, quartz, and small quantities of copper and mundic ores.—Wheal Emma: Inclined Shaft: In the cross-cut north at the 190 the ground is tolerably favourable for progress. In the 137 east the lode is from 5 to 6 ft. wide, composed of capel, quartz, peach, prian, mundic, and some copper ore of good quality—very promising.—New Shaft, New South Lode: In the 205, west on the north part of the lode, the lode is 3½ ft. wide, composed of capel, quartz, peach, and some saving work of mundic and copper ore. In the 115 east the lode is 2 ft. wide, composed of capel, quartz, peach, mundic, and a little copper ore. In the 100 east the lode is 2 ft. wide, producing small quantities of copper and mundic ores. In the 90 east the lode is 2 ft. wide, composed of capel, quartz, peach, mundic, and a little good quality of copper ore.—Railway Shaft: In the Railway shaft sinking below the 190, now down about 13 fms., the ground continues without alteration. In the 190 west, on the north part of the lode, the lode is 4 ft. wide, composed of capel, quartz, peach, mundic, and a little copper ore of good quality. In the 175, on the south part of the lode, the lode is 4 ft. wide, and of a promising character, being composed of capel, quartz, and peach, and producing some good quality copper and mundic ores. In the 160, west on the south side of the lode, the lode is 2 ft. wide, producing small quantities of copper and mundic ores. In Rich's winze in the bottom of the 160, west on the south part of the lode, the lode is 5 ft. wide, and maintains its former value—5 tons of copper ore and 3 tons of mundic per fathom.—Watson's: In the engine-shaft, now about 8 fathoms below the 76, the ground continues favourable for progress.

DEVON GREAT UNITED.—Isaac Richards, June 9: The shaftmen are making very satisfactory progress in cutting ground for cistern plat and other preparatory work connected with fixing the plunger lift at the 93. In the 60 west of Willeeford's shaft on the Capel Tor lode. The lode is 2 ft. wide and continues very promising, producing some good quality copper and mundic ores. In the 50 west of Watson's shaft on the Capel Tor lode the lode is 3½ ft. wide, composed of capel, quartz, peach, mundic, and some good quality copper ore. A pile of stuff recently hauled from this point of operation contains some very valuable arsenical mundic, as well as some good quality copper ore. Our pumping machinery continues to work well, and the water is kept under perfect control with the engine going only about three strokes per minute.

DRAKE WALLS.—Moses Bawden, June 9: I am pleased to say that with the assistance of the steam-engine the water is going down at the rate of 6 ft. per day, and in the course of a few days we shall have the 40 fm. level dry, and as soon as the great pressure of the water is removed we shall at once continue the driving of the deep adit and complete the few fathoms there yet remain to make the communication to the old workings, and once this is effected the copper lode will be thoroughly ventilated, and we expect profitable work be resumed thereon. The four water stamps are at work on low-class tinstuff, which we are clearing from the levels. As soon as the 40 is reached we look for some good class tin ground.

EAST BLUE HILLS.—S. Bennetts, June 2: The clearing of the adit level is being pushed on as fast as the stuff can be hauled. South towards the Pink lode it is nearly full of mud, which is being washed out. It seems from report that a capital bunch of tin was found on that lode where cut in the adit; the bunch being worked out in the back, very little further development was made. Knowing the characteristics of this lode, I consider it a most promising feature. The 30 has been cleared and secured some 30 fms. east, and a communication formed with the 25, and then to the next shaft east, which is full of stuff. The whole ground found in the bottom of the 30 will pay to work as soon as the necessary appliances are at command for the returning of the tin.

— S. Bennetts, June 4: Since the above was written the men have succeeded in getting south towards the Pink lode 70 fms. through this mud and as far as the air would admit; the lode is supposed to be 30 to 40 fms. further.

— S. Bennetts, June 9: We have succeeded in getting into the adit level through deep mud some 70 fms. south of the Highburrow shaft, which is as far as the present ventilation will admit. The top of the Pink shaft is now being opened for the purpose of improving the ventilation, so as to get at the Pink lode. The clearing of both the adit and the upper level east is progressing satisfactorily.

EAST CARADON.—James Kellow, June 8: Setting Report: To drive the cross-cut south at the 178, 1 fm. stent, by nine men, at 25l.; driven during the past month 1 fm. 1 ft. To drive the 150 east on the caunter, 1 fm stent, by six men, at 20l., driven 2 fms. 1 ft. The lode at present is small and ground hard, but I hope this change is only temporary. To drive the 90 east on Fawcetts, 2 fms. stent, by six men, at 13l.; driven 1 fm. 5 ft. 6 in. The lode is 1 ft. wide, composed of peach, quartz, mundic, and a little ore. To drive the 80 west on Fawcett's, 2 fms. stent, by six men, at 12l.; lode 1½ ft. wide, composed of peach, quartz, and mundic, with saving work for copper, and presenting a promising appearance. To drive the 70 west on Fawcett's, 1 fm. stent, by six men, at 20l.; driven 1 fm. 5 ft. 6 in. Lode for the present small and unproductive. To drive the 60 west on Fawcett's, from cross-course, 3 fms. stent, by six men, at 9l.; driven 3 fms. 1 ft. The lode is 2 ft. wide, composed of quartz and prian, intermixed with mundic and black oxide of copper, saving work for the latter. To drive the 60 east of Fawcett's from cross-course, 2 fms. stent, by four men, at 7l.; driven 2 fms. 2 ft. The lode is 8 in. wide. composed of peach and friable quartz, with copper intermixed. To drive the 60 west on Fawcett's from main cross-cut, 2 fms. stent, by six men, at 15l.; driven 1 fm. 5 ft. 10 in. The lode is 1 ft. wide, composed of quartz, peach, mundic, and good stones of copper ore. To drive the 50 west from Fawcett's on main cross-cut, 2 fms. stent, by six men, at 14l.; driven 1 fm. 4 ft. The lode is rather disordered by a small cross-course. Two tribute pitches are being worked by four men, at 15s. in 1l. We sample on Monday next, for sale on the 23rd inst., a parcel of ore computed 26 tons.

EAST CHIVERTON.—R. Southey, June 6: I am pleased to say the lode in the 90 end, west of engine-shaft, is looking splendid; also the stope in the back of the same level. I am safe in saying we shall have 50 tons of good silver-lead for the market by the end of the present month.

— R. Southey, June 8: We are looking splended here. Rocks of lead being sent up fully 1 cwt. in a rock. Western end and stope greatly improved since I wrote you day before yesterday.

EAST ROMAN GRAVELS.—Arthur Waters, June 9: The 109, south of shaft cross-cut, is going forward at present on a small lode, but we think there is more lode standing on the hanging-wall side, and which will come into the drivage as the end advances. The end is yielding stones of lead ore and blende The 84 south is in a lode 4 ft. wide; the ground being hard the progress is rather slow. The winze below the 86 south goes down with fair speed by the side of the main lode. We shall sink to the level of the 97, and then take the lode down to full width. The 86, going north of junction on east part of the lode, is worth 1 ton per fathom. The cross-cut going east towards the said division of the lode, will reach the object in the course of a few days. The three stopes in this level, north and south of winze, are worth together 5½ tons per fathom. The three pitches at work are worth together 2 tons per fathom. Surface work progressing favourably.

EAST LONG RAKE.—H. B. Vercoe, June 8: The lode in the 50 west has very much improved since my last report, a branch having fallen into it from the north side. It now contains a good mixture of lead from the roof to the sole of the level, and promises further improvement. In the 50 east the lode continues just as last reported, fully 3 ft. wide, containing fine lumps of lead, in as fine a matrix as can be seen for the production of lead in large quantities, and judging from the general appearance of the lode I believe we are near the junction of the Wagstaff lode. The rise in roof of the 50 east produces saving stuff for the dressing floors. The masons have completed the engine loadings and are now at work on the boiler-house. The engineers have taken down the whole of the engine, and a deal of it has been delivered on the mine. The roof has been taken off the engine-house and delivered. I have engaged the teams and wagons for conveying the boiler and cylinder to the mine on Monday next, and we shall commence erecting them immediately.

EAST UNY.—H. Eddy, J. F. Harvey, June 9: We are pleased to say that the lode in the 70, driving west, during the past week has improved very much, it being now from 1½ ft. to 2 ft. wide, and producing rich stones of tin and copper. We intend prosecuting this point as fast as possible, as we have every hope of meeting with a rich lode here. There is no change in the cross-cut south since reporting last week. At the 82 west we have cut across the lode 12 ft., and have now commenced to drive on same, and also to drive on the rich leaders of copper ore.

EAST VAN.—W. H. Williams, June 7: Cross-cut B B is unchanged since my last. In cross-cut E E we have intersected the south part of the lode. So far it looks encouraging, and is composed of a kindly looking clay-slate, strings of spar, carbonate of lime, and spots of copper.

EAST WHEAL CREBOR.—Geo. Rowe, June 8: The part of the south lode, intersected in the cross-cut at the 70, west of the engine-shaft, is 3 ft. wide, principally composed of capel and spar, impregnated with mundic and ore. The north lode, in the 70, west of cross-cut, is small and unproductive. We purpose at this point to cross-cut south in quest of any other part of the lode in that direction. The lode in the stope below the 60 is not taken down, consequently of the same value as last reported on. We are exceedingly busy with a limited number of hands in preparing for our next sampling, which we calculate will be about 60 tons of copper ore.

GAWTON COPPER.—George Rowe, George Rowe, jun., June 4: The lode in the 117 east is producing arsenical and sulphur mundics, intermixed with good quality copper ore to the value of 10l. per fathom. The lode in the stopes in the back of the 117 is worth 12l. per fathom. No. 2 stope in the back of the same level (the 117) is worth 14l. per fathom. The lode in the 105 east, of the same kindly appearance, being 6 ft. wide, yielding mundic and ore to the value of 10l. per fathom. The lode in the stope in the bottom of the 105, east of cross-cut, is worth 10l. per fothom. The lode in the 95 east is yielding stones of mundic mixed with ore. Our new arsenic works are progressing as fast as the nature of the work will adit, and the long run of flues leading to the stack is in a forward state of completion.

GORSEDD AND MERLLYN.—W. Edwards, June 9: The 70 fm. level east keeps hard, but there is a little more lead and spar coming in; the vein seems to be holding a little more eastward. The men have driven 1½ yard since last report. In the south driving at the top of the rise, in the 70 west, the ground looks very favourable, but the lead does not keep regular, sometimes coming in very strongly and at others there is very little; taking it on an average, however, it turns out well. The men have driven 4 yards since last report, and the lode is worth about 20 cwts. per fathom. The ground in the 90 west keeps improving; there is a rib of lead, blende, and spar about 1 ft. wide in the heading side, also a rib of lead, blende, and spar about 2 in. wide in the hanging side, with rock about 2 ft. wide between them. The shale bed in the roof is about 1 ft. thick, rising as we go eastward the lead underneath it, and rising to follow. The lead is stronger at the bottom than at the roof; lode worth from 16 cwts. to 1 ton of lead to the fathom, and we are certainly entering a fine deposit. The men have driven 2 yards since last report.—Tributers: Two men in the roof of the 70 east; the lead is worth 16 cwts. per fathom. Two men at No. 2 pitch; the lead is worth 18 cwts. per fathom. Two men at No. 3 pitch; the lead is worth 16 cwts. per fathom. We are busy on the washing-floors.

GREAT HOLWAY.—W. T. Harris, June 9: Operations in the mine are progressing with usual regularity, the only change calling for remark is as follows. Roskell's Shaft: At the 110 cross-cut south we have intersected another branch

of spar 6 in. wide; this in connection with the very masterly lode already driven through gives additional value. Before driving east and west we purpose continuing the cross-cut a few feet further.—Level Engine: No. 1 pitch in back of the 60 west is producing 3 tons of lead ore per fathom. No. 3 pitch is much improved, and is now worth 5 tons of lead ore per fathom. The level is also gradually improving, and is now producing fully 1½ ton of ore per fathom. Other points at Garden, Office, and Brammock shafts fully equal in value to last report. The general appearance of the mine throughout is very satisfactory.

GREAT POLGOOTH UNITED.—W. Rickard, June 6: Since the commencement of operations we have excavated ground for the necessary buildings, &c., and the erection of these buildings will soon be completed. The adit level on the Old Mine lode is extended into the hill about 50 fms., but the work having been so badly done we have had to retimber the level and put it in proper condition. These repairs are being pushed forward with all possible dispatch in order to reach the great cross-course, at which point we intend driving a cross-cut to intersect Craig's lode. We have opened a level on a caunter lode in a south-east direction from this adit, which is now in about 12 fms., and is producing average tinstuff for the stamps. This level will open out a large section of tin-producing ground, but our progress at this point will be slow until we have more stamping power. We are pushing on the costeaning in the Tregontrees portion of the sett, and shall continue this work as far north as the boundary, which will prove the number, size, and character of the different lodes in the grant. We have put down pits on the run of No. 1 lode for fully half-a-mile in length; the lode is about 4 ft. wide, with good walls underlaying north, and producing good stones of tin. As soon as we have completed our costeaning we intend sinking a trial shaft on the course of this lode and east of the great cross-course; this lode is of great promise. No. 2 lode, met with in costeaning, is about 2½ ft. wide, and parallel with No. 1 lode; it has a good appearance, embedded in easy ground for working, and producing tin in the back. No. 3 lode has also been cut in costeaning; this lode is about 1 ft. 6 in. wide, and as far as seen is of a most promising character, with tin disseminated throughout. We consider the main or champion lode of this series is still further to the north, and which will be opened up as early as possible. This done it will enable us to fix our position for permanent working. The whole of these lodes are in virgin ground, with the same elvans, and intersected by the same cross-courses as the lodes in the old mine, and will in all probability prove equally productive. Just on the top of the hill, and near the great cross-course, we have found some old workings that were made by the ancient tinners, but how long ago it is hard to say. We have cleared up the old shaft about 10 fms., but have not yet reached the bottom. This, in my opinion, is a most important point. As soon as we have finished some of the preliminary work we intend to commence driving an adit level on the course of No. 1 lode, at the foot of the hill, so that the tinstuff broken from these lodes may be trammed direct to the stamps at the least possible expense.—Old Mine: We shall at once commence to open up the south lode to the east of the cross-course. This lode was found very productive west of this point, and as the lode is standing in whole ground for nearly a mile to the east it is only fair to expect good results from this quarter. The tinstuff will be trammed direct to the stamps from this lode. We have cleared up the little batch of tin, but I do not think it advisable to send it to the smelting house until we have more to go with it. All our operations are being pushed on and good progress made.

GREAT RETALLACK.—J. Harris, June 4: In driving our 53 end east we have intersected a crossing just about the supposed line of the Peru branch, and which has changed the character of the lode very considerably in regard to compactness, the ground being very much easier for driving, and we are also finding good stones of blende and small patches of good lead. The water in the shaft has gone back very much during the past fortnight, and I am hoping in another fortnight the shaft will be drained to the bottom.

GREAT WEST CHIVERTON.—J. Curtis, June 8: We are cutting down the shaft as fast as possible, and hope to complete it to the adit level this week. In putting a stope over the bottom of the shaft at the adit level we have found good spots of lead in the lode, which clearly shows depth is only required to prove the lode.

GREAT WHEAL POLGOOTH.—J. Rodda, June 8: We are pushing on with our surface work as fast as possible; have cleared foundation for smith's shop, men's changing-house, material house and office, and the wheel-pit to receive the big wheel will be completed in a week or two. We have also begun to make leats for bringing in the water from the River Fal, from which we calculate we can get water of quite 100-horse power. We shall begin to collar up the engine-shaft next week. We have found some very rich stones of tin in removing the debris for the foundation of the buildings.

GLASGOW CARADON CONSOLS.—Wm. Taylor, Wm. J. Taylor, June 7: There is no particular change in the 114 cross-cut south, which is being pushed on as fast as possible. The shaftmen are making fair progress in cutting out penthouse at the 102, and preparing to fix skip-road to the bottom level. We have passed through the branch in the 102 cross-cut, but there is very little alteration in the ground south of it, which is still hard. The driving east from winze, in the bottom of the 90, is opening orey ground; lode worth 6*l.* per fathom. We have holed the winze from the 78 to the 90 west, on north lode, which has ventilated and cut out some more ore ground for stoping. The stopes and pitches, on the whole, are about the same as last reported. We are taking out the boiler at the old whim, and hope to get the new one on the mine to-day, which we shall get to work as early as possible.

GOVER CONSOLS.—Wm. Hooper, May 31: I beg to hand you my report:—Tamblyn's Engine-Shaft: We have cased and divided down about 12 fms.; also erected a horse-whim, poppit-heads, and pulleys to the same. This will be a saving on manual labour, and we are now in a position to sink much faster, which will be done. At the back of 10 the tributers are breaking very good tinstuff. We have driven through the slide and cut into the main lode about 7 fms., but not yet through it; it is impregnated with tin throughout, and of a very promising character. We are erecting another 12 heads of stamps, which in a short time will be completed. In consequence of the dry weather water is very scarce, and we are unable to work many heads of stamps, the same wheel having to haul the tinstuff; but we shall return tin by pay-day. The machinery throughout the mine is working satisfactorily.

GREEN HURTH.—W. Vipond, June 3: The south end men are still busy with the bottom part of the shaft, but will soon have it into a state that we can commence to drive the opening level south, and at the same time begin to drive eastward to Nos. 2, 3, and 4 cross-veins, and on underneath the rich ground that was formerly worked at Bodder Mea. The sole and roof of the standage level are yielding 4 tons of ore per fathom; it is getting a fine-looking working this. The stope south from rise, going above the 30 towards Swan shaft, is yielding 1 ton of ore per fathom. Stope No. 1 over the 30, going on to Vipond's sump, is yielding 2 tons of ore per fathom. Stope No. 2, above and behind this, is also yielding 2½ tons of ore per fathom. This ground is getting better as we get more into the Hazle. The stope in the sole of the 30 going north is yielding 2½ tons of ore per fathom. The stope over the 30, going on to Robinson's sump, is comparatively poor at present, yielding 15 cwts. of ore per fathom. The cross-cut south from adit level is without change.

GUNNISLAKE (CLITTERS).—Wm. Skewis, T. C. Seccombe, June 9: The lode in the 224 west is worth 9*l.* per fathom, whilst in the eastern end it is disordered by a cross-course. In the 212 west the lode is worth 7*l.* per fathom, with every appearance of an early improvement. In this level east the lode is poor for the time. The lode in the 200 west is worth 8*l.* per fathom. In the 200 east we are driving south to intersect the new lode, which we hope will be done in a few days, as the water is coming very freely from the end. Judging from the splendid lode gone down from the level above we fully expect to cut it good here. The lode in the rise in the back of this level is worth 10*l.* per fathom. The lode in the 188 west is worth 8*l.* per fathom, and in the eastern end it is 2½ ft. wide, looking very promising for an early improvement. The lode in the rise in the back of this level is worth 10*l.* per fathom. In the 176 east the lode is worth 7*l.* per fathom, and in the rise in the back 11*l.* per fathom. The lode in the 164 east is worth 8*l.* per fathom. Nothing new in the other cross-cuts to notice. The stopes and pitches are producing about their usual quantity of copper ore.

GWYDYR AMALGAMATED.—J. Roberts, W. Sandoe, June 8: Clementina: The north end at the 34 is still very wet—wetter than we have seen it for some time, but we have no lead yet to value, although the end is looking kindlier; let for 7*l.* per fathom. The south end at the same level is improving; the lode is opening wider, and showing more lead than it has since we started; let at 11*l.* per fathom. We have not been able to start sinking the shaft on account of having been kept waiting for the windbore, which we expected last week.—Aberllyn: There is no change in the mine for the last two or three weeks. The sump at No. 2 is producing good blende, from 2 to 3 tons to the fathom; let to four men, at 13*l.* 13s. per fathom. No. 2 end is producing spots of lead and patches of blende, but not sufficient to value. We are only carrying about 3 or 4 ft. of the lode, whereas the whole width is over 20 ft.; let to four men, at 12*l.* per fathom. The dressing is being pushed on as fast as possible.

HINGSTON DOWN.—Thomas Richards, June 8: The lode in the 12, east of the engine-shaft, is of much the same character, containing capel, quartz, peach, prian, &c., and a little good saving work for copper ore. This level is for the present suspended, whilst the pitwork, drawing gear, skiproad, &c., are being put in, preparatory to sinking the engine-shaft below the 12. No. 1 lode, in the deep adit level, east of the south cross-cut, contains capel, gossan, mundic, quartz, and occasional good stones of copper ore. No. 2 lode, in the deep adit level, east of the south cross-cut, is without any material change.

KIT HILL GREAT CONSOLS.—Isaac Richards, June 9: The lode recently discovered in the granite quarry, and previously referred to, has been opened upon on the north part for a short distance, which proves to be from 3 to 4 ft. wide, consisting of very fine capel, quartz, gossan, and prian; and, from samples carefully taken and assayed, this portion of the lode proves to be worth 7*l.* per fathom for tin. This result may be considered highly satisfactory from workings at so shallow a depth—only a few feet below the surface; and, judging from the present ascertained value of the north part of the lode, and the very favourable indications generally for its whole width, 12 ft., there cannot be a doubt that large quantities of tin will be discovered as the lode is developed in depth. It will be inconvenient to do anything on the south portion of the lode for some two or three weeks, the time required to enable the quarrymen to get a little further on with their work. The repairs of buildings and machinery, and the driving of the deep adit, are progressing as fast as the nature of the work will admit.

KIRK MICHAEL.—R. Rowe, June 8: The shaft is sunk 4½ ft. below the 20, the rib of ore in the lode is from 2 to 3 in. wide so far, but from appearances I expect it will widen as we sink. In the 20 south, since last report we have intersected the first slide at 7 fathoms from the shaft; there was a nice rib of lead about 3 in. wide up close to the slide, which is about 4 ft. wide, and to-day we came upon the lode on the other side, and broke good stones of lead from it—a day or two I expect will again lay open the lode. In the 20 north the lode is open, and letting out a good deal of water, with a rib of lead about 3 in. wide, worth from 12 to 15 cwts. of lead per fathom.

LADY BERTHA UNITED.—T. Nelli, June 9: We have been clearing the new shaft, and have set the first 10 fms. at 1*l.* per fm. to six men, and are pleased to state that satisfactory progress is being made. We are also laying the tramroad at the 30; when this is completed we shall put on extra hands, and get the same completed with as little delay as possible. The stope in the back of the 30, east of shaft, is looking well, producing from 12 to 15 tons of rich mundic per fathom, and some fine stones of copper ore. Stope in the back of the 40 east is looking well; lode 8 ft. wide, and producing a large quantity of good mundic. We are still busy clearing this level, which will be completed this week. All other work is being pushed on with all speed, and we hope to see the bottom of the mine in about a month, when good discoveries will, no doubt, be laid open. Saturday being our pay and setting, a full report will be sent you.

LADYWELL.—Arthur Waters, June 7: We are still driving east of the main level in search of a side lode, and find the country rock congenial and wet, but there is no sign yet of a discovery. I consider it advisable to go on as at present for another fathom, or perhaps 2 fms.; and, should we not find a lode, then continue the adit on the present lode towards the shale.

LEAD ERA.—J. A. Ede, June 9: I am pleased to be able to inform you that the leader of spar approved by you has again made its appearance in our drift south-west of No. 1 sump. Here the ground cannot be surpassed for favourable indications.

LLANDEGLA.—H. Hotchkiss, June 8: I have no change whatever to report this week.

LOMAX.—John Curtis, June 6: In answer to yours of the 3rd inst., I quite agree with you about the flookan, and believe the workings are near it, and if the lode is found to the north of it no doubt but what you will have a valuable concern. With respect to erecting a steam-whim, I think it should be done at the same time as the pumping-engine is being erected. You can draw the stuff at present cheaper by horse-power than by steam. The sett is quite sufficient for any machinery that may be required for a very long time to come. I think your lodes are north of the boundary; distance about 450 fathoms—say half a mile; long enough in my opinion, and I think you will say so too.

— William Argall, June 8: The ground in the driving by the side of the lode is just as last reported, still containing branches of iron falling into the lode. From the run of the flookan as seen in the cliff we must be getting very near it; it will be a very important point to cut the lode on the north side of this flookan, when we may fairly expect good results.

MARKE VALLEY.—Wm. George, June 9: The lode has not been taken down in the 90 west since last reported on. In the winze sinking below the 90 the lode will yield for length carried (9 ft.) 3 tons of ore per fathom. No change in the 20 cross-cut south or in the 20 driving west, on south part, which is still worth 1 ton of ore per fathom. The stopes and pitches are turning out just as was expected at our last setting. Our sampling of copper ore, for sale on the 23rd inst., is (computed) 220 tons. Rather better progress is being made in Wheal Jenkin adit this week.

MELLANEAR.—John Gilbert, June 8: There is no change in the 30 cross-cut, south of Gundry's shaft, but the men are making very good progress in driving. The lode in the 60, west of shaft, is 2 ft. wide, producing some saving work for copper ore and occasional stones of lead. The ground in the 70 cross-cut, driving north from the main lode, is a little harder than usual, and mixed with veins of spar, spotted with copper ore, but the end still keeps very dry. The lode in the 80, west of Gundry's shaft, is 3 ft. wide, yielding 1½ ton of ore per fathom, and is well defined, and looking very promising. The winze in the bottom of this level is yielding 1 ton of ore per fathom. The lode in the 90, west of shaft, on the south part, is 3½ ft. wide, and yielding 1½ ton of ore per fathom, but the ground is harder, and the lode is rather disordered. In the 90, driving west of shaft, on the north part, the lode is 3 ft. wide, yielding 1 ton of copper ore per fathom and some saving work for tin. The winze in the bottom of this level is yielding 2¼ tons of ore per fathom. The rise in the back of this level will yield 1½ ton of ore per fathom; this rise will be communicated with the winze sinking in the bottom of the 80 by the early part of next week. The rise in the back of the 100, west of shaft, will still yield 2 tons of ore per fathom. The lode in the 110, west of shaft, is 4 ft. wide, yielding 3 tons of ore per fathom, and letting out an increased quantity of water, which is draining the 100 for a little. The sinking of Gundry's shaft below the 110 is progressing a little more favourably; the elvan-course is getting mixed with killas, which makes the ground easier for driving. The lode in the 110, west from the old engine-shaft, is 4 ft. wide, yielding occasional stones of copper and tin ores, but not sufficient to value. There is nothing new to report about in any other part of the mine.

MORFA DU.—T. Mitchell, June 9: The lode in the end driving at the 48 continues to look very well, and is yielding about the same as when reported last week. The winze sinking below the 48 continues to yield from 3 to 4 tons of bluestone per fathom. The pitches are without any change worthy of notice.

MOUNT CARBIS.—George Johns, June 9: The masons will complete the building of the engine-house next week, and the engine is ready to go into the house at once. The great tin lode in the adit level will produce good quality tinstuff, but we cannot open on it to prove its value until the shaft is through from the surface, and this we expect to complete next week.

MYNYDD-GORDDU.—Thomas Kemp, June 8: I beg to hand you bi-monthly setting report. Six men to cross-cut the lode north in the 46, at 120s. per fm.; as we have only just pierced the orey part of the lode we cannot yet say definitely as to its character; the water is still issuing with great force. Six men to sink a winze on the north part of the lode in the sole of the 34 at 160s. per fathom; the part of the lode carried in sinking the said winze is to communicate with the 46 when sufficiently advanced. Four men to rise in and stope the caunter lode over the back of the 34 at 100s. per fathom; worth 10*l.* per fathom. Four men to rise and stope the north part of the lode over the 34 at 100s. per fathom; worth 20*l.* per fathom. Six men to stope the main part of lode over the 34 at 60s. per fathom; worth 12*l.* per fathom. Four men to stope an arch of ground under the 12, west of shaft, at 75s. per fathom; worth 15*l.* per fathom. Four men to continue the 12, west of shaft, at 120s. per fathom; the part of the lode carried by this driving continues of the same promising character as previously reported, chiefly composed of crystallised spar intermixed with lead ore. Three men to tram and fill into skips all stuff in the mine at 4s. 8d. per score skiploads. We shall forward on Friday 10 tons of silver-lead ore to Messrs. Goodhart and Co. Hauling and dressing going on regularly. Machinery in good order.

NEW BROMFLOYD.—Thomas Kemp, June 9: No 3 Shaft, North Lode: The lode in the stope over the 52, and to the east of shaft, is equal in value to last report; worth 15 cwts. of lead ore per fathom, for a width of 18 ft. The men in the pitch to the west of shaft, and over this same level, are employed in hauling their ore stuff.—No. 2 Shaft, Middle Lode: The lode in tribute pitch, over the 52, and to the west of shaft, is worth 15 cwts. of ore per cubic fathom, in ground very hard for breaking. The lode in the stope over the back of the 52, to the west of Lloyd's cross-cut, for the length, 10 fms., is worth from 25 to 30 cwts. of ore per fathom; a very nice looking lode, going up in ground whole to surface. The men in the pitch over the 40, and to the west of shaft, have finished hauling their stuff, and are employed in filling up the workings with attle, to enable them to reach the ground, and when done they will commence stoping on a good orey lode. The parcel of silver-lead ore, 20 tons, sold to Messrs. Weston, Son, and Company, on Thursday, the 2nd inst., realised 11*l.* 3s. per ton, which has been forwarded to their firm. Hauling and dressing are going on regularly, and every effort will be made to get another parcel ready at the earliest date possible. Machinery in fair working order, with a pretty good supply of surface water.

NEW KITTY.—W. Vivian, June 9.—We have cleared the engine-shaft down to the 14. We have not yet cleared the level, therefore I cannot say anything as to the work that has been done at this point. I hope to see more of it in a few days.

NEW PENROSE.—John Curtis, June 6: We are looking a little better, and will send you my report to-morrow.

NEW WEST CARADON.—N. Richards, June 8: The winze sunk below the 53 is now ready for raising the stuff through, and we have placed the same pare of men to rise in the back of the 42, west of Hallett's cross-course, in a good lode, yielding about 2 tons of copper ore per fathom. The lode in the end driving west at this level will at present yield 1 ton of copper ore per fathom. We must now place a full pare of men to drive the cross-cut south of Hallett's shaft at the 38, and if the air will not admit of our driving west at the same time we shall suspend it until this ground is holed, as it is important this should be done as early as possible.

NEW WEST GOGINAN.—A. Francis, June 8: We have had excellent luck in getting up all the necessary materials from the branch workings, and which will supply us for sinking Poulter's shaft, which is now down 2 fms., and where we are daily finding some extremely fine lode stones, showing us that we are in close proximity to the Goginan lode, and I have no fear of a successful issue.

NORTHERN LEAD.—Thos. Tonkin, June 9: The stopes in the adit level yield 8 cwts. of ore to the fathom. The drivage east is hard, and yields a little ore. The 15 level stopes, east section, yield 8 cwts. of ore to the fathom, and the stopes west section 8 and 10 cwts. respectively. The stopes above the 42 level east section are looking favourable, and yield about 10 cwts. of ore to the fathom in easy ground. The stopes west section yield 15 cwts. of ore to the fathom. As before reported, the above-named stopes are all on tribute. The drivage in Quarry Hazel sill, west of Gin shaft, does not at present yield ore to value. The hot dry weather of last week is now changed into hard cold days, with occasional showers of snow. Our water supply is still very limited.

NORTH GREEN HURTH.—W. Vipond, June 3: There is very little to report from the North Green Hurth level. The beds are slightly dipping, but not sufficient to say that it is caused by any vein near at hand. We have commenced with the new level, or rather I may say open cut yet. There is some distance to go in this in slightly rising ground before it will get under cover. It is going in peat and clay at present, but will get the sile as it goes on. The man who is open-cutting for veins has not made any further discovery this week.

NORTH PENSTRUTHAL.—Stephen Davey, William Polkinghorne, June 9: We have no change in either of the bargains worthy of special remarks. In the 120 cross-cut we have about 9 ft. further to drive to cut the lode, which is being pushed on with all possible dispatch.

PANDORA.—H. Nottingham, June 8: In the engine-shaft sinking under the 45 the lode is looking better for lead again; the ground is also harder and very wet, so that our progress in sinking is rather slow.—45 fm. level: The 45 going south on new lode is showing a strong hard lode, well mixed through with lead and blende; worth 25 cwts. of lead to a fathom. The stope north of shaft is worth 25 cwts. of lead and 15 cwts. of blende to a fathom.—35 fm. level: The winze sinking north of shaft is showing better indications for a course of ore, and I look for an early improvement here. We have three stopes working over this level south of shaft, worth on an average 18 cwt. of lead to a fathom. We have no change in south end on Goddaru's lode. The tributers are doing rather better this month.—Surface: Drawing and dressing are being carried on steadily, the crusher being fully supplied with stuff.

PANT-Y-MWYN.—E. Parry, June 9: The 22, west of Modlyn, is being pushed on as fast as possible by eight men. The lode is strong, well defined, and yields a considerable quantity of blende. There is a soft ore lode 5 ft. wide in the winze below the 13, east of Griffith's, and 11 fms. ahead of the end of the 22. No change elsewhere.

PARYS COPPER CORPORATION.—T. Mitchell, June 9: We have no change here of any importance since my last report. Everything going on in the usual regular order. We are still meeting with small branches of copper and sulphur in the 90 south, and the ground is of a most promising character.

PENHALE AND BARTON.—James Evans, June 9: We are still engaged in constructing whim-round and excavating for the bob-stand at the Barton shaft and I reckon this work will be completed by the end of the week. We are also clearing the cross-cut at the adit level, and the carpenters are engaged in making whims for the new shaft, and Albert shaft. We started the engine on Mouday in the presence of the directors of the company, who spent the entire day upon the ground, and very minutely examined everything connected with the works. A detailed report of their proceedings is, I understand, to be sent you by other hands.

PENHALLS.—S. Bennetts, R. Harris, June 4: In the 70 cross-cut south another section of the lode has been intersected and found tinny, on which a rise will be forthwith commenced. The 60 east is worth 7*l.* per fathom. The 55 east is worth 8*l.* per fathom. A winze below the 50 west is worth 10*l.* per fathom, and the 45 west is worth 10*l.* per fathom. Elsewhere there is no change to notice.

PENNANT.—June 9: The 80 level west is rather pinched at present. We have a well-defined foot wall, but the lode is mostly composed of killas—much like the ground in the 60 level before entering the carbonate. We must now be nearing the 60 deposits. We have about 7 fms. more to drive to come up to the great shaft, which is between two lodes. When this point is reached I think of putting out cross-cuts, and if possible effect a communication with the great shaft. This will prove the lodes and also ventilate this part of the mine, from which we shall be enabled to extract great quantities of mineral. We are pushing on the stopes, which are producing good carbonate, with a little lead. I should say the time has now arrived when we should make some little repairs to our shaft, and connect the pumps under the 80 level, so that we may resume the driving of the 113 level. It is here I look for increased quanty of lead. As before stated, it is in depth we must look for good supplies of lead, seeing that the lode has undergone an important change. The ground here contain lead without baryts, and this is what we always expected, therefore I think it is very important that these levels should be driven; also the 60 level east, and in the meantime the stopes continued.

PEN-YR-ORSEDD.—J. Bellis, R. Prince, June 9: We are very much pleased with the appearance of the 150, north cross-cut. The ground has become much more sparry, and already traces of lead have been discovered. Taking these favourable indications into account, and bearing in mind that we are in exactly the same bearing formation as those which are now proving so productive in the adjoining Rhosesmor Mine, we have every reason for believing that when the lode is cut (which at our present rate of progress will be within the month) we shall find it rich. The ground in the 150, south cross-cut continues of the same favourable character as previously reported; it is, however, hard and compact, so that progress is necessarily somewhat slow.

POLROSE.—W. Bennetts, June 8: The lode in the 100 west maintains its size, but is not so mineralised as when first intersected, being more mixed up with killas. We have not yet cut anything in the 90 cross-cut south. The ground continues of the same favourable nature as last reported. The lode in the 90 west is of a very strong character, being about 3 ft. wide, composed chiefly of mundic, with spar, spots of copper ore, and a little tin. In the western adit, 44 fms. from the mouth, we have come upon a level driven east on a lode. We have followed this level over 50 fms, and find some beautiful gossan and other indications of a strong lode. The men are sinking a grass shaft for ventilation and for hauling the stuff through, and when the level is cleared and the ground dialled I shall be able to ascertain what lode this is. We have traced the adit 6 fms. south beyond this lode up to another choke. I believe the adit is driven much further south yet, and intersects other lodes in the south part of our sett.

PRINCE OF WALES.—S. Roberts, G. Rowe, June 8: The men are getting on fairly well with the sinking of Watson's engine-shaft. In the 90 end east there is no change to notice since last week. Still driving in the killas by the side of the lode. The ground in which we are driving produces good stones of copper ore. In the rise in back of this level there is a great change still taking place in the ground, the nature and character of which appears to be more productive of copper ore, and from holes in the lode we have taken out some very rich copper. The 90 end west, lode nearly 5 ft. wide, worth 20*l.* per fathom for tin. Tribute pitch in back of this end producing good quality tinstuff. A small batch of tin will be sent to smelting house to-day, about 48 cwt.

ROMAN GRAVELS.—Arthur Waters and Son, June 9: The 125, north of new engine-shaft, is in a lode 6 ft. wide, composed of spar and stones of ore. The 125 south shows a small lode 3 ft. wide with stones of ore, but not to value. The 110, north of old shaft, is worth 2½ tons per fathom. The 110, south of new shaft, is worth 1 ton per fathom. The two stopes in said level, north of Flatrod shaft, are worth together 3 tons per fathom. Three stopes north of new shaft in same level are worth 4½ tons per fathom. The 95, south of new shaft is in a lode 7 ft. wide, worth 2 tons per fathom, and improving. The two stopes in 95, south of Jack's winze, are worth 3 tons per fathom. The three stopes north of ditto are worth 5 tons per fathom. The 80, south of Evans's winze on east part of the lode, is worth 1 ton per fathom. The cross-cut west here has not yet reached the footwall lode. The winze below the 80 on middle lode, now down 7 fms. 4 ft., is worth 2½ tons per fathom. The three stopes in this level, south of Betton's winze, are worth 6 tons per fathom. The stope south of Matthews's winze is worth 1½ ton per fathom. The four stopes in the 80, north of old shaft, are worth 5 tons per fathom. The 65 south, on east part of Roman lode, is worth 5 tons per fathom, and the end on footwall portion 2 tons per fathom, and improving daily. No. 1 stope, in 65 south, is worth 8 tons per fathom; No 2 stope, 4 tons; No. 3 stope, 5 tons; No. 4 stope, 4 tons; and No. 5 stope, 4 tons per fm. The 50, south of Stoke's winze, is worth 2 tons per fathom. The winze below the 40 south is down 11 fms. 4 ft., and we hope to hole to the 50 some time this month. We have sampled 100 tons lead ore for sale next week.

SORTRIDGE.—W. Skewis, June 9: The tin lode continues to hold up to its size and value, samples of which will be taken and tested in time for next report. In Gossan lode the shaft is being sunk in it, and there is some good copper ore mixed in the gossan, and the present appearances lead me to expect a good discovery of copper shortly, as I shall have a full pare of men working on this from Monday next. I shall be in a position next week to commence about the engine-shaft, and I am very sanguine of soon being able to open up a good mine.

SOUTH CONDURROW.—Wm. Rich, Wm. Williams, H. King, June 8: The lode in the 93 end east yields low quality tinstone, and has a kindly appearance, and looks promising to improve. The stope behind this end is worth 12*l.* per fathom. The 80 end, east of King's, is letting out more water than usual, but the lode at present is unproductive for tin. The 80 end, east of the Plantation shaft, is worth 11*l.* per fathom. The 70, east of King's, is worth 8*l.* per fathom. There is nothing new to report on in the 70 cross-cut south; we are urging on the cross-cut by six men as fast as possible. The lode in the 60, west of Plantation shaft, is worth 25*l.* per fathom. The 60, east of King's, is worth 8*l.* per fm. The 50 end east is worth 12*l.* per fathom. The lode in the 42, west of the cross-course, at Marshall's shaft, is worth 10*l.* per fathom, and the ground easy for working.

SOUTH DARREN.—H. James, June 9: The shaftmen are putting in penthouse, have cut down the lode at the north side of the shaft, and made sufficient room to the south for fixing tackle, &c. The lode being stripped down from the side of the 120, east and west, is yielding good lead ore. The lode up close to the 120 end west is not cut into, but from its appearance I should say it is a strong and good lead-producing lode. In the 110 end east we have cut into the lode about 6 ft. wide, and have not yet the full width; it will now yield ½ ton of lead and 2 tons of copper ore per fathom. There is no change to report elsewhere.

SOUTH DEVON UNITED.—W. Hooper, June 9: The lode in the 110, east of Brook engine-shaft, is from 4 to 5 ft. wide, containing capel, mundic, and copper ore, with a value of 23*l.* per fathom; this end has a very fine appearance for a good and lasting improvement, from the fact of the 100 over having been driven east through a rich lode for a great distance, and we have every reason to expect from the appearance of this end to have a long run of valuable ground in this direction. No. 1 stope, in the back of this level, the lode is 2 ft. wide, with a value of 10*l.* per fathom. No. 2 ditto, the lode is 2½ ft. wide, with a value of 9*l.* per fathom. The lode in the 100, east of Brook engine-shaft, has a better appearance than I have seen it since intersecting the small crossing that disordered the lode; it is now from 4 to 5 ft. wide, composed of capel, spar, and some good stones of copper ore. I have not the slightest doubt of the end again improving as its being driven east. The stope in the back of this level, the lode is 4 ft. wide, with a value of 8*l.* per fathom. The lode in the 90, east of Brook engine-shaft, is 5 ft. wide, containing spar, mundic, and copper ore, with a value of 10*l.* per fathom; water is issuing very freely from the lode, which indicates there is a porous lode ahead, and shall not be surprised at intersecting something good here in a short distance further driving. The lode in No. 1 stope, in the back of this level, is 5 ft. wide, with a value of 12*l.* per fathom. No. 2 ditto, the lode is 2½ ft. wide, with a value of 8*l.* per fathom. The 80, east of Brook engine-shaft, the lode is from 4 to 5 ft. wide, composed of capel, mundic, and copper ore, with a value of 8*l.* per fathom. No. 1 stope in the back of this level, the lode is 3½ ft. wide, with a value of 12*l.* per fathom. No. 2 ditto, the lode is 5 ft. wide, with a value of 10*l.* per fathom.—Surface: Martin's Shaft: The men having completed their stent of 10 fms., we have again set to them for a month at 15*l.* per fathom; we endeavoured to set them a longer stent, but this they declined. The ground is very favourable for sinking, and good progress is being made; the shaft is now down 13 fms. 3 ft. We are now busy engaged sending away copper ore for the sampling on Monday next, the computed quantity we will send you next week. Having had some rain the beginning part of the week, we were enabled to work an extra jigger or two, but I am sorry to say the water has again considerably fallen off, which has necessitated the stoppage of the above again.

SOUTH PENSTRUTHAL.—Stephen Davey, June 9: Walton's Engine-Shaft: About 8 fms. below the 50 we find the shaft full of stuff, through which we have rid about 3 fms., and not yet reached the level, but are daily expecting to. The skip-road in flat-rod shaft will be completed to the 20 in a day or two, and shall push it on to the 30 as fast as possible; when completed to that point we shall at once commence clearing the south cross-cut and put the men to drive it to cut the tin lode.

SOUTH TOLCARNE.—Thomas Angove, Samuel Arthur, June 8: The cross-cut north at the 60 is letting out more water. We have at present in the end a blue capel producing tin. The 60 end west lode is very large, producing tin of low value. The 60 end east lode is very much increased in size, presenting a favourable character. The stopes above the 50 continue to look well.

SOUTH WHEAL CREBOR.—J. Goldsworthy, June 7: The shaft is down required depth for a 20 below the 16, making the depth from surface 46 fms. The ground has proved exceedingly hard and spare for sinking. Every effort has been made to get the shaft down, but the elvan is short and jointy, which lessens the force of the blasting. From the underlay in the 16 the lode should have been met with in or near the present bottom of the shaft. The elvan may have influenced the underlay; if so there may be several feet to drive. On the other hand, should the underlay not be much disturbed the lode will soon be met with. We have commenced opening the side of the shaft towards the lode at the same time the shaft will be squared down and a sollar put in. The lode in the stope north is worth 2½ tons of rich copper ore per fathom. The sawyers are busily engaged in sawing timber for casing and dividing the shaft, so that the whim kibbles may be sent to the bottom. The machinery is working well and giving satisfaction. I am confident of success on intersecting the lode.

TANKERVILLE GREAT CONSOLS.—A. Waters and Son, June 9: Tankerville Mine: The 220, going west of Watson's engine-shaft, on No. 1 north lode, is worth 1½ ton per fathom; vein 6 ft. wide. The 220, east of cross-cut, also shows a lode 6 ft. wide, worth ¾ ton per fathom. No. 1 stope in the 220, west on the main lode, is worth 25 cwts. per fathom. No. 2 stope, west of ditto, is also yielding 25 cwts. per fathom. No. 1 stope in said level is worth 20 cwts. per fathom. No. 2 stope is worth 25 cwts. per fathom. The winze below the 205 west is worth 20 cwts. per fathom. The 206, east of No. 1 cross-cut, on south lode, is yielding stones of ore. The stope in the 206 west, on main lode, is worth 25 cwts. per fathom. No. 2 stope, west of ditto, is worth 20 cwts. per fathom. The rise in the 206, west on Robert's lode, is worth 30 cwts. per fathom. The 180, west of shale on old lode, is producing stones of lead ore and blende; the lode being very wet. The stope in back of the 100, on No. 1 north lode, is worth 20 cwts. per fathom. The 74, east of junction on south lode, is worth 10 cwts. per fathom. The 74 going south-west on branch is worth 20 cwts. per fathom. The stope above the 74, on south lode, is worth 15 cwts. per fathom. The 35, east of old shaft, is yielding stones of ore of a promising character. The adit or Boat level south of Watson's, towards pump sump shaft, will be holed to the latter point in a few days. We have seven pitches by 14 men, at tributes varying from 3*l.* 10s. to 6*l.* per ton. We have to-day sampled 60 tons No. 1 quality lead ore, for sale next week.—Pennerley: The water is now 7 fms. 3 ft. 6 in. below the 70. Machinery and so forth working well. We shall not be long getting to the 80, after which our way to the bottom of the mine will be easy.—Bog: The water is now 3 fms. 3 ft. 6 in. below the 50; engine working well. We have three pitches at work by six men at 5*l.* per ton for lead ore and 20s. per ton for blende.

TREVINCE CONSOLS.—John Mayne, June 9: Wheal Moor lode is worth from 12*l.* to 15*l.* per fathom. The new north lode produces the usual quantity of copper ore, mundic, &c. The cross-cut driving south is being pushed on vigorously, and the ground changing; and, judging from the underlie of the

lode at the shaft, we must be very near to it, which I have every confidence will be found to be productive.

TEMPLE.—June 8: In the 20, on the Temple lode, the lode is improving in appearance; the lead is about the same in quantity as when last reported on. In the adit level, on the champion lode, there is no change since the last report, the lode continuing of the same favourable character, producing a little blende, and letting out much water.

WEST ASSHETON.—J. Garland, June 8: The ground in the 92 west is a little easier, and we are making better progress; the lode is still large and strong, and contains stones of lead ore in places. The lode in the 70 west is 18 in. wide, composed of soft killas, mixed with a little blende, but no lead ore for the last few feet driven; the ground is favourable for driving. The intermediate level driving east from footway rise, under the 40, is on a lode now yielding about 10 cwts. of lead ore per fathom. The lode in the stope west of the rise has not yet been taken down; its value as last reported is 1½ ton to the fathom. There is no material change in the tribute pitches. We sampled on Wednesday last 20 tons of lead ore, for sale to-morrow.

WEST CARADON.—N. Richards, June 8: Gilpin's lode, in the winze sinking below the adit level, is producing some very rich grey and black copper ore. Vivian's north lode, in the back of the 50, is improved, and will now yield from 1½ to 2 tons of copper ore per fathom. This lode in the rise in the back of the 38, east of cross-cut, although small when we commenced, will now yield about 3 tons of ore to a fathom. All other points yielding quite as much ore as when reported on last week—in fact, I have not seen the mine looking better than it is to-day since we commenced operations 14 or 15 months since.

WEST CHIVERTON.—R. Southey, June 8: The only change since my last is an improvement in the stope, west of the 80 end, east of Hawke's shaft. It will be remembered we put up a rise just behind the end, and communicated with the 70 for ventilation. We are stoping this piece of ground, and last night we drew to surface fully 2 tons of lead from it. I feel anxious to meet with this shoot of lead in the end driving east. The lode in the end, although at present poor, is looking exceedingly promising, and seems as if an early improvement is near at hand. This is most important, for the reason that should we meet with lead at the point in question—and I see no reason why not—it would put us in a position to pay costs at once.

WEST CREBOR.—J. Andrews, June 8: There is no change in the lode in the engine-shaft since last reported on, which is still 3 ft. wide, composed chiefly of quartz, capel, and mundic.

WEST DEVON GREAT CONSOLS.—Geo. Rowe, June 8: Our men are progressing very satisfactorily in cutting down the new shaft, and carrying a portion of the lode, which is producing fine works of gossan, mixed with friable spar, and spotted with black oxide and yellow copper.

WEST GODOLPHIN.—T. Hodge, F. Hodge, June 9: We have widened our watercourse from the stamps to the headweir, a distance of two miles, and also fixed a new headweir. We have now sufficient water to drive our eight heads of stamps. We have nearly completed the wheel-pit for our new 24 ft. wheel. We are doing nothing towards fixing our pitwork; we are waiting for the steam capstan. The steam-pipes to connect the same have been delivered, and we hope to start the capstan either on Monday or Tuesday next.

WEST HOLWAY.—R. Rowlands, June 9: The 110 yard level is much as last reported, worth 1½ ton of lead per fathom. The 110 east is looking better today, worth 1 ton of lead per fathom—a splendid looking lode, and one that promises continuous and large deposits. In the 95 east we are getting lumps of ore daily, and there is a change in the ground, by which we can go on with more speed, and it will be very strange if we do not meet shortly with good results. In the 30 east the lode is 4 ft. wide, composed mostly of spar, with a good leading of ore on the footwall. The 80 west is much the same as last reported, and contains a nice mixture of ore on the hanging-wall. The 80 west rise still maintains its strength and value, as for some time, worth 2 tons of lead per fm. The ground in Pam shaft cross-cut is still hard and spare to drive. The mine continues to open up exceedingly satisfactorily.

WEST LISBURNE.—N. Bray, June 8: This mine was visited on the 1st inst. by the Chairman, directors, and secretary, accompanied by many shareholders, to witness the starting or the fine 25-horse power steam-engine and other machinery. The engine was started without a hitch, and is now draining the mine in a most admirable manner. In deference to the wish of the shareholders the engine was named Marvin's engine.

WEST KITTY.—W. Vivian, June 9: In the 72, driving east, the lode is 3 ft. wide, producing some good stones of tin, with every appearance of further improvement. In the 60, driving east, the lode is 6 ft. wide, worth over 30*l.* per fathom. In the rise in the back the lode is worth 30*l.* per fathom. In the 72, driving west, the lode is 2 ft. wide, producing good stones of tin. On the whole, the mine is opening up very satisfactorily indeed.

WEST POLBREEN.—W. Vivian, June 9: We are pushing on the cross-cut north to intersect the north lode with all speed. We have cleared the adit level on the south lode, and have broken some good stones of tin. I now purpose to stope the back of this level.

WEST VOR.—S. Harris, June 9: I am now come from underground, and am glad to say that the hole in the adit level, driving east of cross-cut, is becoming more mineralised and letting out more water. A better defined or more congenial lode for the production of tin I never saw, and am quite satisfied that development only is required to attain great success.

WEST WHEAL FOLGUS.—John Gilbert, June 9: The lode in the 155, driving west of Taylor's shaft, is 3 ft. wide, and yielding occasional stones of copper ore. In the 145, driving west of shaft, the lode is 2½ ft. wide, and yielding stones of copper ore. The lode in the 105, driving west of Richard's shaft, on the north part, is 3 ft. wide, spotted with ore, and letting out an increased quantity of water, but is at present rather disordered by a small cross-course. The lode in the winze sinking in the bottom of the 95, west of shaft, is 3 ft. wide, and yielding 2½ tons of ore per fathom. The stope in the bottom of this level, east of winze, will yield 3 tons of ore per fathom. The stope in the bottom of this level, west of winze, will yield 4 tons of ore per fathom. There is no change to notice in any other bargain or stopes.

WHEAL BOYS.—W. T. White, June 7: The lode in the deep adit end driving west is improving as we extend, having every appearance of entering upon a fine run of ground. The end is driving at 5*l.* per fathom, and the lode is producing some very good work for tin. The lode in the winze sinking in the bottom of the 36 (or shallow adit level) is improving as depth is obtained; this looks well for the above end coming in under. The lode in this winze is producing some as fine stones of tin as I have seen, and the ground opening up will pay to stope when communication is effected. The clearing of the 20 is being pushed on with all speed, and we hope in a few days to be able to set a pare of men to work on the tin lode and send a parcel of stuff to surface. We shall also commence operations on the other lodes intersected by the cross-cut at this level. Altogether I consider the prospects of the mine are exceedingly good, and that it will turn out a success.

WHEAL COATES UNITED.—W. H. Martin, June 3: The 70 east is extended from shaft 51 fms. 3 ft. Throughout the month the lode has been hard and unproductive for tin. We passed through a bunch of mundic. At present the lode yields rich stones of grey copper ore, and is better defined and more congenial for the production of tin. Driving by three men and three boys. The 70 west is driven from No. 2 winze 26 fms., driving by six men at 4*l.* 10s. per fathom; worth for tin, 7*l.* per fathom. According to the cross-course seen in the cliff, the near, under the perpendicular, but as the cross-course has not been seen under adit in this sett, we cannot say anything about its underlie, if any. The end is 7 ft. wide, and more lode standing to the north. It is my opinion there is more lode in that direction for about 6 fathoms. Behind the end a stream of water is coming from the back and north side. The extending of the end does not drain the water from that part; by that reason we believe the lode is divided. After we have intersected the great cross-course we purpose to cross-cut north and south. We are now on the verge of intersection, a point of great interest. The 50 west is driven from No. 2 winze 18 fms. 2 ft. The lode is composed of more capel, rather impeding the progress. Driving by four men, at 7*l.* per fathom, worth for tin 6*l.* 10s. per fathom. The 50 east is driven from shaft 27 fms. 4 ft., driving by two men and two boys at 3*l.* 10s. per fathom, and at 10s. in the 1*l.* tribute, worth for tin 6*l.* per fathom.—Stoping: Stope in bottom of the 70 west, west from winze, by five men and three boys, at 4*l.* per fathom, worth 6*l.* 10s. Stope in bottom of the 70 west, east from winze, by four men and four boys, at 3*l.* 15s. per fathom, worth 7*l.* per fathom. No. 1 rise stope in back of the 70 east, by six men, at 4s. 9d. per ton, worth 7*l.* per fathom. No. 2 rise stope, by six men, at 3*l.* 15s. per fathom, worth 6*l.* per fathom. No. 3 rise stope, by four men, at 6*l.*, worth 6*l.* per fathom. Stope in back of 70 west, by four men and four boys, at 5s. 6d. per ton, worth 8*l.* per fathom. Stope in back of the 60 west from No. 2 winze, by four men and two boys, at 5s. 9d. per ton, worth 6*l.* per fathom.—Tribute: Pitch in back of the 70 west, by three men and three boys, at 12s. in 1*l.* Pitch in back of the 60 west, by six men, at 16s. 4d. in 1*l.* Pitch in back of the 50 west, by six men, at 13s. 4d. in 1*l.* The masons have completed the walls for the water-wheel, and we are promised the water-wheel and pulveriser to be delivered this week. We have drawn about 800 tons of staff, and stamped 750 tons. The sale of tin on Wednesday next will be about 7½ tons.

WHEAL CREBOR.—G. Rowe, H. Phillips, June 7: The lode in the 120 east is showing a very kindly appearance, and yielding mundic and ore to the value of 4*l.* per fathom. The lode in the stope in the back of the 120, east of winze, is worth 15*l.* per fathom. No. 2 stope in the back of the same level, west of cross-cut, is improved; worth 20*l.* per fathom. The part of the lode carried in the 103 east is 8 ft. wide, principally composed of hard capel and spar, impregnated with white iron, fluor spar, and mundic, mixed with good quality copper ore. The lode in the stope in the bottom of the 103, both east and west of winze, is worth 25*l.* per fathom. The lode in the stope in the back of the 103, west of rise, is worth 30*l.* per fathom. The lode in the stope in the back of the same level is worth 70*l.* per fathom. No. 3 stope in the back of the same level is worth 40*l.* per fathom. The new shaft is squared down below the 98, and will shortly be to the 103. The lode in the 43 east is showing indications of improvement, and yielding good stones of ore.

WHEAL GEORGE.—C. Knecbone, June 9: The new south cross-cut shows more lead and blende in the cleavages, but we have not taken down the east and west lode. Since last report the No. 2 adit on Trial lode shows more water and considerably more timber. We have cleared up the plumbago tanks, and shall send off samples to-morrow.

WHEAL GRENVILLE.—T. Hodge, June 7: The 190 west end is worth 8*l.* per fathom, and letting out much water. The lode in the 190 east produces stamping work. The 178 east end is worth 6*l.* per fathom. The 165 west end produces low price tin-stone. The 165 east end is worth 11*l.* per fathom. The 150 east end is worth 10*l.* per fathom. The 140 east end is worth 14*l.* per fathom. The stopes on the whole are without any change for some time past. We are preparing to erect another axle; this done we hope to be able to stamp (say) 2000 tons a month, which, if the stuff is moderately productive, will enable us to do very well.

WHEAL FORTUNE.—W. Knott, June 8: In the 40 cross-cut north the ground is composed of cleaner killas, the heads of which are tinted with green carbonate of copper, and an increase of water issues from the end. We regard this as a strong proof that we are near the lode. In the 40 cross-cut south the ground since we cut through the small lode, mentioned in last week's report, is composed of a darker coloured killas, and still traversed with branches of iron and quartz, interspersed with mundic and yellow copper of good quality, and water still issues from the end; this indicates that there is more lode south of the present end. In the 44, west of engine-shaft, the silver lode is 8 in. wide, composed of carbonate of iron and prian, interspersed with sulphur—a very promising lode for silver.—Bennett's Eastern Shaft, on Wheal Brothers Lode: The lode in the present bottom of this shaft is 20 in. wide, composed of flookan, prian, and carbonate of iron, with occasional spots of silver-lead.

WHEAL JEWELL.—J. Juleff, June 4: Setting Report: In the 70, east of the engine-shaft, we are cross-cutting through the lode, and into it 14 ft.; composed of quartz, mundic, and spots of copper ore; set to six men at 7*l.* per fathom. The 60 is driven east of the engine-shaft 74 fms.; here we are daily expecting to intersect the cross course; set to six men at 5*l.* per fathom for the month. The 50 to drive east of the cross-course, with four men the month, at 3*l.* 10s. per fathom; lode 3 ft. wide, composed of quartz. The 50 to drive west of the winze, with two men the month, at 2*l.* per fathom; the ore part of the lode is 2 feet wide, and worth 2 tons of copper ore per fathom. Stope in back of the 50, west of ladder winze, with four men and one boy, set the month at 2*l.* per fathom; lode worth 2 tons of copper ore per fathom. The 40 to drive east of the cross-course, with four men the month, at 4*l.* per fathom; lode 4 ft. wide, composed of a good looking gossan with stones of copper ore. Winze to sink below the 40, with two men and one boy, at 3*l.* 10s. per fathom; lode worth 1 ton of copper ore per fathom. New 8haft to sink from surface, with six men, set 10 fms., at 4*l.* per fathom. The 50 cross-cut to drive north of the engine lode, with four men the month, at 6*l.* per fathom.

WHEAL PEEVOR.—W. T. White, J. C. King, June 7: The 90 to drive west, at 7*l.* per fathom; lode at present is slightly disordered by the elvan, but we expect this will improve the lode when we pass through it. The 90 to drive east, at 8*l.* 10s. per fathom; lode worth 12*l.* per fathom. The 80 to drive west, at 5*l.* 15s. per fathom; the lode in this end has greatly improved of late, and is now the full size of the end, and worth fully 25*l.* per fathom; this is a proof that our rich run of ground is holding good in depth, and looks well for the 90 coming in under, which we are forcing on with all speed, having eight men in the end. The rise in back of this level, just behind the end, at 7*l.* 10s. per fathom; lode worth 10*l.* per fathom. The 80 to drive east, at 7*l.* 10s. per fathom; lode worth 12*l.* per fathom. The rise in back of this level, at 6*l.* 15s. per fathom; the lode is worth 10*l.* per fathom. The cross-cut to drive north at the 80 west to intersect the middle lode, at 8*l.* per fathom—certain bargain to cut the lode: we look upon this as an important point, believing we shall meet with a good lode, and expect to reach it in at least a fortnight's time. The 70 to drive west, at 8*l.* 8s. per fathom; lode worth 20*l.* per fathom. We have reached the small cross-course in the 70 east, and the men are now engaged in squaring up the lode, in order to spill through the same; this end has passed through a good run of ground, and we have some good stopes working in the back of same. The cross-cut to drive south at the 60 west, at 8*l.* 10s. per fathom. The cross-cut to drive north at the 60, west of cross-course, at 7*l.* per fathom. The new shaft to sink from surface on main rise, at 7*l.* per fathom; we expect to communicate this in a few weeks' time, when we shall have a perpendicular shaft to the 70. Seven stopes were also set on tutwork, at prices varying from 2*l.* 10s. to 4*l.* per fathom; lode worth on average 11*l.* per fathom. The driving east of the cross-course at the 60 east is rather slow at present; we have to be very careful with regard to the timber in the cross-course, but when we get on a little distance we shall make better speed. The men at the old sump shaft are making all possible progress in clearing out the 45 both east and west, and the same remark applies to the sinking of our engine-shaft below the 90. The prospects of the mine we consider are still very good, and it is returning a good quantity of tin.

WHEAL PRUSSIA AND CARDREW UNITED.—J. Pryor, June 2: Prussia Lode: The men are making fair progress in sinking the skip-shaft under the 50; it is down about 4½ fms. The lode is 3 ft. wide, presenting a very kindly appearance, and worth about 10*l.* per fathom. The lode in the rise in the back of the 50 west is producing tinstuff of a low quality. The lode in the rise in the back of the 40 east is worth 7*l.* per fathom; this rise when communicated to the level above will not only give good ventilation but will also lay open a large piece of ground of ground for stoping. The lode in the 30 east is worth 15*l.* per fathom. The lode in the rise in the back of this level is worth 10*l.* per fathom. A stope in the bottom of this level is worth 10*l.* per fathom. We have suspended the driving of the 30 west for the time, and put the men to rise in the back; the lode looks very kindly, and worth about 7*l.* per fathom. The lode in the 20 west, and west of rise, is worth 10*l.* per fathom. The lode in the 20 west, and east of rise, is not looking so well, but will, I think, shortly improve.—Cardrew Lode: The water is in fork about 3 fms. under the 20 below adit. The shaftmen are busily engaged cutting down the shaft to this level; this will be completed in a few days. We then purpose fixing a standing bucket-lift; when accomplished we shall again resume the forking of the water. The workings on this lode are very extensive, and we are busily engaged putting in ladder-roads, clearing the levels, &c., and hope shortly to be able to report satisfactorily on same; and as far as seen, I have every reason to adhere to my belief in the productiveness of these mines in depth.

WHEAL RUSSELL.—John Gifford, John Bray, June 9: Saturday last being our pay and setting day, the following bargains were set:—Stephen's shaft, to sink by nine men, stented the month, at 12*l.* per fm.; lode still continues its size and promising character. The 55 to drive east, on the main lode, by four men, stented the month; here the lode has increased in size and character, yielding good stones of copper ore, and very likely to improve. A winze to sink in the bottom of the 80, east of Matthew's shaft, to sink by six men, at 11*l.* per fathom, stented the month; here the lode is 5 ft. wide, composed of capel, quartz, mundic, and good stones of copper ore. Although not enough to value, it is a very promising point.

WHEAL UNY.—Henry Eddy, Wm. Prophet, June 10: There is no material change in any of the different points in operation throughout the mine since last reported. Our survey and setting will be on Saturday next; we will, therefore, send you a full report next week.

YORK AND LANCASTER UNITED.—J. Barlase, June 9: In cutting through the Burn lode in the 10 north of new shaft, it is 7 ft. wide, and producing good saving work for lead. I am pleased to say we have to-day intersected the Oxclose lode in the 10 about 3 ft.; 12 in. of this is worth 40*l.* per fathom for silver lead; the remainder, so far as seen, is producing good lumps of calamine intermixed with lead. Not through it yet We have some of the new engines now brought on the mine, and expect to get some more this week. The small engine is working well, and all other work is pushing on as fast as possible.

FOREIGN MINES.

TAMBRACHERRY.—The directors received this week the following advices from their manager:—Charlotte: I am working at No. 4 outcrop. At No. 5 I have got to the end of the stone, but am driving an adit into the Bungalow Hill to intercept any reef there may be.—Adelaide: A tunnel has been driven about 80 ft., and in a few days we should be under the outcrop, when, if there is a reef, we shall strike it.—Chemdale: There are several outcrops here, one of which the superintendent is making a cross-cut; if it looks like a reef I purpose driving an adit into it at a low level.—Lower Reef: I am still driving, but have not yet reached the point when I may expect to strike the reef. We can only get on very slowly, as the rock has to be blasted.—Cootacovil: I have had a large shed built at the site of works to store material and timber.

SAN PEDRO.—S. Lean, April 15: Since my last I beg to inform you that we have completed the timbering of the footroads to the 122, and a month hence expect to finish the timbering to the 135; below this we have no timber to replace. A great deal of stuff has been drawn from the 88 and 100 in opening the roads, and a great deal more must be drawn from the latter level and below, once the shaft is put in repair. The main shaft has been put in good repair from the adit to the 47, except some repairs to the skip road, which we have been unable to do for want of bolts and ironwork; we have had no smith or carpenter to prepare the skip-roads, but have both now on the mine. We have also put in good strong bearers at the 88, and secured 11 fms. above, which leaves 30 fms. more to complete from the 88 to the 47; this part we expect to finish by the 8th or 12th of the ensuing month. Once this is secured we shall begin to fix strong timber at the 110, and secure up to the 88. We have been taking out a little low quality ore at the adit level just to keep one cart supplied for Chanaral, but this point we have now let on tribute at 15 per cent.—San Antonio: Here we have sunk the shaft 10 metres, and have driven 2·50 metres to get under the chiflon, and expect to cut the lode shortly. In the cross-cut we are meeting with cross-branches and others dipping towards the main lode, from which we have taken good stones of carbonates and oxides of copper; the rock is highly impregnated with native copper, which is a good indication of meeting with a bunch of ore on the main lode. Our hope is to get something in San Antonio to assist us until we can get to the bottom of San Pedro, and cut into the manto. I have great faith the former will soon become a rich mine, and once the lode is cut intend to place the San Pedro horse-whim on the shaft, and extend two levels on the lode. I regret to inform you that on the 13th instant a native working on tribute near the main workings at the adit level accidentally fell down these workings, which are open for about 40 fms., and was killed; no blame can be attached to anyone, as the men are supplied with all the necessary materials as well as in the main shaft to prevent any accident happening which might intimidate the men and retard our progress.

RUBY AND DUNDERBERG CONSOLIDATED.—Report on mines for the week ending May 15: Dunderberg: The ground in the 700 ft. level has been very hard during the week, but is of a very favourable character for ore; progress this week, 14 ft.; total, 400 ft. from the shaft. The No. 2 winze has progressed 22 ft. during the week; total, 123 ft. below the 600. No. 1 ore body still continues producing some good ore, but as the ground between the 500 or 600 at this point is nearly exhausted I do not expect to get much more ore at this place. At the stope from the bottom of the south winze at the end of the 600 the ore body is developing well; so far there has not been enough work done to ascertain its size. No. 3 above the 400 continues good, and looks very promising; the ore body is from 4 to 6 ft. wide, of fair grade. The ore in No. 4 has improved in quality during the week, but still continues rather small, and in very hard ground. The 300 west cross-cut has been advanced 7 ft. during the week; total, 517 ft. from the north drift from old incline. Have shipped 61 tons ore this week; have 43 men and 8 tributers at work, and I expect the shipments this week will be increased considerably.—Bullwhacker: The rise from the south-east cross-cut on the 325 has progressed 15 ft. during the week, and is now connected with winze A from the 250. The ore at this point is from 2 to 3 ft. wide, and I think it is of a better quality than any ore heretofore shipped from this mine. The cross-cut has been continued 12 ft. past the rise. There has not been any work done on the 250 during the week, but work will be resumed again as soon as practicable. Have shipped between 213 tons of ore, and have 10 men at work.

— Telegram received from Eureka to-day, June 7: The week's run from the furnace was 810,500, from 220 tons of ore, producing 31 tons of bare bullion. The shipments of the week were 276 tons.

POTOSI.—A telegram has been received (June 4) from the mines:—725 to 750 tons of ore raised, 550 to 575 tons of ore milled, quartz showing 1¼ ozs. to the ton, remittance between 900 and 1000 ozs., cause of small Potosi remittance dry season no water, 15 days of 24 hours full work.

NEW GOLD RUN.—May 7: Mill: The working of the mill thus far has not paid expenses, but run behind considerably. In opening breast we worked to the west, supposing from direction of lead in bedrock uncovered that it tended that way, but we have found little or no coarse gold, and all the dirt taken out has been poor, much of it not averaging 81·10 per car load. In last run we commenced working to the east, and found the dirt somewhat better, but very hard, although indicating a heavy wash as though on or near the lead. Since stopping the mill—to wash ground over which mill pipe was laid—I have been running a drift eastward to prospect; have got it extended about 30 ft. from main track, and to all appearances we are coming into better bottom, as more coarse gold shows itself than at any time since opening breast. As soon as possible I shall get mill started again, and work entirely in this direction, and it is to be hoped with much better results. I have also started to drift under bank towards Miners' Ditch ground, and bottom looks well.—Mine: Everything is working well. I am running two nozzles, and using 700 in. of water until the pipe is laid to the mill. Our next clean up ought to be better, as we are using more water, and running a large amount of dirt. We can make but one more run after the present. There is but little snow in the mountains. The weather has been very warm for over a month, and water must soon commence dropping down fast.

CANADIAN COPPER.—Francis Bennetts, May 27: Bolton Mine: We are engaged in preparing the south shaft to sink under the 10, the appearance of the vein tested in the 10 being so favourable as to induce the belief that larger quantities of ore may be found at a deeper level.—Acton Mine: As we feared some of our machinery might give out if pressed to meet the requirements of the usual freshet of water during the spring; we have repaired and strengthened the machinery, and are now pumping out the water collected during the time the engine was stopped.—St. Francis Mine: There is no new feature in the works to report.—Hartford Mine: I am glad to inform you that the vein in the 40, 50, and 85 still continues good, and the extension of these levels is opening up valuable and extensive reserves that will come for future supplies. With the desire of meeting your request that the mine should be worked with all the vigour that can be judiciously employed, I am about to unwater No. 1 shaft; and as the ores from this shaft are of a higher average grade for copper than at No. 5 shaft, I expect to make a valuable addition to our monthly output and grade of ores, both from No. 5 shaft by the increased facilities for breaking the ores at that shaft and from No. 1 shaft as a valuable auxiliary.

PIERREFITTE.—June 4: In No. 3 level the ground is moderate for driving, and fair progress is being made; there is no ore to value in the present end, which is being driven on the flookan. The portion of lode being carried with the No. 2 level yields 2 tons of lead ore and 3 tons of blende per fathom; a large portion of the orey part of the lode appears to be standing to the north, which there is every reason to believe is as good as the part being carried with the end. No. 2 stope over No. 1 level yields 6½ tons of lead ore and 1 ton of blende per fathom. No. 3 stope yields 8 tons of lead ore and 1 ton of blende per fathom. No. 2 stope below No. 1 level yields 9 tons of lead ore and 2 tons of blende per fathom.

FLAVILLA.—May 9: Our prospects are much the same as when I wrote you on the 2nd inst. We have drifted about 10 ft. in the Brook's drift, and taken out about ½ ton of ore. We have also drifted 15 ft. in the rise without any change in the formation. There is no sign of ledge matter yet. We are working five men at the usual rate of wages.

CAPE COPPER.—The Ookiep, Spectakel, and Trial Mines reports for April are received.—Returns for April: Ookiep, 1200 tons, of 29 per cent.; Spectakel, 144 tons of 35 per cent.; Nababeep, 23 tons of 21 per cent.—Bill of lading received: 590 tons of ore per Tacna, and 430 tons per L'Esperance.—Arrival at Port Nolloth: The Glenragon.—Sales of ore: 700 tons at 11s. 7½d. per unit; 800 tons at 11s. 9d. per unit; and 100 tons at 12s. per unit.

VIRNEBERG COPPER.—R. K. Roskilley, June 7: We set the following bargains on the 2nd inst.—Headley Engine-Shaft: The 160 metre level to drive south of cross-cut to six men, at 45 marks per metre; the lode in the forebreast is large, composed principally of a beautiful mineral-bearing quartz, and yielding good stones of copper ore—a promising lode; this level is 23 metres south of cross-cut. A cross-cut to drive west of this level to two men, at 40 marks per metre; the object of this drivage is to intersect the lode west of the basalt now in this end, seeing that the lodes at and near the basalt in the levels above made rich in copper, and the same being tinctured with green oxide of copper, we are induced to believe that on meeting with the lode in this direction it will be found productive. The level to drive north of stope in back of the 140 metre level to four men, at 30 marks per metre; the lode is worth 5*l.* per fathom. The 140 metre level to drive north of new cross-cut to four men, at 60 marks per metre; the lode in the end has a fine appearance, and produces saving work for copper. To rise in back of ditto to three men also at 60 marks per metre; lode improved, and yielding some good copper ore; this rise is above the level 3 metres, and we have about 7 metres more to communicate with the end driving north of stope north of cross-cut, in which there is a fine course of ore. To stope the back of this level south of shaft to six men, at 17 marks per metre; the lode is worth 12*l.* per fathom. To stope the back of ditto north of rise, south of shaft, to six men, at 18 marks per metre; lode worth 9*l.* per fathom. To stope the back of the 140 metre level, north of cross-cut, to six men, at 17 marks, and the end to drive at 50 marks per metre; the lode in the former is worth 12*l.*, and in the latter 15*l.* per fathom. To drive a level north and south of footway winze above the 140 to two men, at 50 marks per metre; the lode here is producing good stones of copper ore; judging from its character generally, we are looking forward to an improvement. To stope the back of the 100 metre level north and south of rise north of shaft to two men, at 14 marks per metre; the lode is worth 4*l.* per fathom. The 100 metre level to drive south of shaft to six men, at 50 marks per metre; in the forebreast the lode is still improving, and yielding stones of ore. To stope the back of this level south of shaft to six men, at 17 marks per metre; lode worth 15*l.* per fathom. The dressing of ore is being pushed on with speed, and we hope to make another shipment by the end of this month. The engines and machinery are working well, and all surface work is going on satisfactorily.

PESTARENA UNITED GOLD.—S. Gifford, June 2: Monthly Report: Val Toppa: The end driving north on the new lode, on No. 1 level, has opened a continuation of low class quartz on east side, which is producing 10 tons of ore per fathom at 3 dwts. per ton. The south end is got into disordered ground, yielding only patches of saving work. The driving northwards on the west lode has been resumed to prove a small vein of quartz there. At No. 2 level the north end on the same lode has got out on the great quartz line, and there are no further hopes of a separate vein in that direction. A rise from this level has been holed to the new lode, having passed through some branches that will be tried later. The end driving south on slide has a little stiffer ground, with less talcose matter in the vein, and the cross-cut west from great quartz lode continues in loose floors of quartzite. A winze on great quartz lode, in the intermediate level, between Nos. 2 and 3, is going down in a decent lode of stiff quartz, some 2 ft. wide, and yielding 6 tons of 7 dwts. per fathom. A cross-cut has been started east from middle lode to flat lode to prove some veins striking out of a stope on the latter. The cross-cut at No. 3 level, east from great quartz lode, has proved to have passed the boundary, and is, consequently, stopped. No. 3 end, on slide, holds forth in chloritic schist. At No. 4 level a winze has been resumed on the great quartz lode to prove a short shoot of low grade quartz going down from stopes worked above. During the past month 513 tons of ore have been milled, producing 157 ozs. 14 dwts. 16 grs. of bar gold, or an average of 6 dwts. 2 grs. per ton. The whole of the mills are kept going at present, but the exhaustion of many of the stopes renders it difficult to keep up the supply for the full number.—Pestarena: No. 1 Lode: In the incline shaft, sinking below the 110, the ground has become easier in the western end, where the lode seems coming again. A tip-plat is being sunk here in country rock, and fair progress is being made. The lode in the 110 north yields 3 tons per fathom at 1 oz., and in the end south it carries large patches of quartz, but produces a little saving work only. The cross-cut driving west from the 90 has just passed through a small vein of quartz and pyrites, and the ground inside seems a little more favourable. The 80 end north shows a lode 1 metre wide, composed of dark schist, with strings of pyrites. The 55 north contains a little veined quartz occasionally, but of no value. In the intermediate level south a little ore is still being followed, and 3 tons of ½ oz. per ton being obtained. The 46 north at Acquavite is poor and unpromising, and driving suspended. At the 33 north the ground is stiffer, and the lode small and unproductive. The end driving south at the 65 carries occasional stones of ore in congenial schist, but yields nothing to value.—No. 5 Lode: The 65 end north has a small poor lode, with no signs of change. The rise in back of the 65 south yields 5 tons per fathom at ½ oz.; the ore cut does not extend back over all the stope yet, but appears likely to do so soon. The winze in the bottom of the 33, coming down to meet the rise, is yielding 8 tons at 7 dwts.; the lode has improved to 80 centimetres wide, composed chiefly of quartz, with good veins and spots of pyrites through it. To push the clearing of the stuff in the mine, the hauling, tramming, &c., have been set on contract, and I hope so see a marked improvement in this work: 377 tons of ore were treated during May, and 457 ozs. 5 dwts. 12 grs. of bar gold produced, showing an average yield of 1 oz. 4 dwts. 6 grs. per ton. All machinery continues in fair working order.

STORING ELECTRICITY.—That the Faure secondary battery solves the problem of the electric storage of dynamical energy is confirmed by no less an authority than Sir William Thomson, who states that there has been no exaggeration as to the marvellous box of electricity, for after the 72 hours journey from Paris to Glasgow one of the four cells was discharged, and after being re-charged by its own laboratory was left to itself absolutely undisturbed. After that it yielded 260,000 ft. lbs., or a little more than a quarter of a million, showing that the estimate of 1,000,000 ft. lbs. in the box when it left Paris was no exaggeration. Sir William Thomson adds that this test not only confirms Mr. Regnie'r's measurements, but seems further to show that the waste of stored energy is not great, and that for days or weeks, at all events, it may not be of practical moment. A little battery, he says, of seven of these boxes suffices to give the incandescence in Swan or Edison lights to the extent of 100 candles for six hours, without any perceptible diminution of brilliancy. Thus, instead of needing a gas engine or steam engine to be kept at work as long as the light is wanted, with the liability of the light failing at any moment through the slipping of a belt—an accident of too frequent occurrence—or any other breakdown or stoppage of the machinery, and instead of the wasteful inactivity during the hours of day or night when the light is not required, the engine may be kept going all day and stopped at night, or it may be kept going day and night, which will undoubtedly be the most economical plan when the electric light comes into general enough use. The Faure accumulator, always kept charged from the engine by the house supply wire, with a proper automatic stop to check the supply when the accumulator is full, will be always ready at any hour of the day or night to give whatever light is required. Precisely the same advantages in respect of force will be gained by the accumulator when the electric town supply is, as it surely will be before many years pass, regularly used for turning lathes and other machinery in workshops and sewing machines in private houses.

CORPORATION OF SOUTH AUSTRALIAN COPPER MINES.—The directors have received a telegram from the colonial committee at Adelaide stating that they have appointed Captain Paull the manager of the mines.

At the Society of Engineers on Monday a paper will be read on the Prevention of Smoke, by Mr. A. C. Engert, the leading features of which are as follows:—The incombustibility of smoke. Smoke incapable of combining with other matter floating in the air. The extraction and consumption of the gases arising from coal, and the prevention of the formation of smoke in furnaces, open fire grates, stoves, kitcheners, vertical boilers, and locomotives. Advantages of the system.

COPPER ORES.

Sampled May 4, and sold at the Royal Hotel, Truro, May 19.

Mines.	Tons.	Price.	Mines.	Tons.	Price.
Devon Great Consols.	114	£1 3 6	Gunnislake (Clitters)..	87	£6 4 6
ditto	102	1 5 0	ditto	86	5 2 6
ditto	94	1 2 0	ditto	85	6 12 6
ditto	86	1 9 6	ditto	84	5 6 6
ditto	85	1 1 0	ditto	68	6 2 6
ditto	81	1 5 0	ditto	51	5 17 0
ditto	76	1 1 0	Marke Valley	65	1 19 0
ditto	65	5 3 6	ditto	55	3 5 6
ditto	57	1 1 0	ditto	42	2 0 0
ditto	45	3 13 6	ditto	33	1 7 6
South Caradon	100	1 4 6	ditto	11	4 6 0
ditto	84	3 11 6	Levant	70	7 10 0
ditto	83	3 9 0	ditto	45	5 0 6
ditto	82	3 13 6	ditto	2	34 12 6
ditto	61	9 1 0	Phœnix	35	4 12 6
ditto	60	4 12 6			

TOTAL PRODUCE.

Devon Great Con.	805	£1323 12 0	Marke Valley	206	£ 483 11 0
South Caradon	470	1840 1 0	Levant	117	820 7 6
Gunnislake	461	2622 12 0	Phœnix	35	161 17 6

Average standard ..... £87 13 0 | Average produce 7⅛
Average price per ton £3 9 6
Quantity of ore ..... 2094 | Quantity of fine copper, 148 tons 8 cwts.
Amount of money £7252 1 0

LAST SALE.—Average standard... £88 10 0 | Average produce 7¼
Standard of corresponding sale last month, £97 14 0 | Produce, 5¾

COMPANIES BY WHOM THE ORES WERE PURCHASED.

Name.	Tons.	Amount.
Vivian and Sons	385½	£1453 11 4½
Grenfell and Sons	230	745 6 8½
Nevill, Druce, and Sons	353½	1230 5 8½
Williams, Foster, and Co.	381	1370 18 2½
Mason and Elkington	168	490 5 6
Charles Lambert	576	1961 13 6
Total	2094	£7252 1 0

COPPER ORES.

Sampled May 18, and sold at Tabb's Hotel, Redruth, June 2.

Mines.	Tons.	Price.	Mines.	Tons.	Price.
Mellanear	80	£3 3 0	Wheal Jewell	45	£3 2 6
ditto	79	2 10 6	ditto	5	1 15 6
ditto	78	2 11 6	West Seton	34	5 6 6
ditto	76	2 11 6	ditto	30	4 11 0
ditto	70	2 1 0	ditto	23	3 16 0
ditto	66	2 10 6	ditto	3	14 12 6
ditto	64	2 15 0	Carn Camborne	40	4 7 6
West Tolgus	50	3 13 6	South Condurrow	40	3 9 0
ditto	45	5 1 0	Wheal Comford	21	3 15 0
ditto	42	5 17 0	Wheal Kitty	75	4 13 6
Wheal Jewell	52	1 17 6			

TOTAL PRODUCE.

Mellanear	513	£1334 3 6	Carn Camborne	40	£ 175 0 0
West Tolgus	137	656 14 0	South Condurrow	40	138 0 0
Wheal Jewell	102	247 0 0	Wheal Comford	21	78 15 0
West Seton	90	448 16 6	Wheal Kitty	15	70 2 6

Average standard ..... £ 90 11 0 | Average produce 6⅝
Average price per ton £3 5 6
Quantity of ore ..... 958 tons | Quantity of fine copper, 63 tons 17 cwts.
Amount of money £3148 11 6

LAST SALE.—Average standard... £ 87 13 0 | Average produce 7⅛
Standard of corresponding sale last month, £ 88 10 0 | Produce, 7¼

COMPANIES BY WHOM THE ORES WERE PURCHASED.

Names.	Tons.	Amount.
Vivian and Sons	206	£ 664 4 6
Grenfell and Sons	219	830 11 6
Nevill, Druce, and Co.	137⅔	375 17 6
Williams, Foster, and Co.	198⅓	729 6 0
Mason and Elkington	87⅓	239 8 0
Charles Lambert and Co.	109⅔	309 4 0
Total	958	£3148 11 6

COPPER ORES.

Sampled May 18, and sold at Swansea, May 31.

Mines.	Tons.	Produce.	Price.	Mines.	Tons.	Produce	Price
Betts Cove	123	6¾	£3 10 6	Arendal	35	7⅞	£4 4 0
ditto	123	6⅜	3 11 6	ditto	38	5	2 9 0
ditto	123	6⅜	3 11 6	ditto	38	5¼	2 10 6
ditto	123	6⅜	3 13 0	Garronne	87	6½	3 13 6
ditto	123	6¾	3 12 0	ditto	86	6¼	3 13 6
ditto	122	6⅝	3 14 6	Burnt Ore	128	2⅜	0 15 0
ditto	122	6¾	3 14 6	Carracedo	77	10½	6 3 6
ditto	122	6⅝	3 14 6	ditto	33	17½	9 17 6
Arendal	50	7¼	3 14 0	Cop. Precipt.	10	51⅞	30 15 6
ditto	50	7½	3 14 0	ditto	2	7⅜	3 19 0
ditto	50	7¼	3 15 0	Cronebane	7	41½	23 6 0
ditto	50	7¼	3 17 6	ditto	4	61½	35 1 0
ditto	50	7⅞	4 4 6	Tigrony Pre.	8	27¾	17 7 6
ditto	50	7⅞	4 4 6	Cop. Residue	4	14⅞	7 7 0

TOTAL PRODUCE.

Betts Cove Ore	981	£3568 2 6	Copper Precipt.	12	£ 315 13 0
Arendal Ore	411	1509 16 0	Cronebane Ore	11	303 6 0
Garonne Ore	173	635 15 6	Tigrony Precipt.	8	139 0 0
Burnt Ore	128	96 0 0	Copper Residue	4	29 8 0
Carracedo Ore	110	801 7 0			

COMPANIES BY WHOM THE ORES WERE PURCHASED.

Names.	Tons.	Amount.
Copper Miners' Company	362⅔	£ 1,354 2 10
P. Grenfell and Sons	239	1072 8 0
Vivian and Sons	41	147 12 0
Williams, Foster, and Co.	213⅓	977 9 4
Mason and Elkington	334	1,233 0 0
Charles Lambert and Co.	446	1,803 17 6
Landore Copper Company	201⅔	809 18 4
Total	1838	£ 7,398 8 0

TOTALS AND AVERAGES.

	21 cwts.	Produce.	Price.	Per unit.	Standard
Whole sale	1838	7¼	£4 0 6	11s. 0½d.	£82 2 6

PACIFIC COAST MINING PROTECTIVE ASSOCIATION.—Under this title a mine agency has been formed in San Francisco, California, by Capts. JOSEPH RICHARDS and JOHN TREGLOAN, which is designed to prove very useful to capitalists generally, to whom all necessary advice is offered concerning mining investments on the Pacific Coast. Capt. Richards is the brother of the late Capt. James Richards, for many years manager of Devon Great Consols; he has been for 11 years in the United States, where he appears to have successfully followed his profession as a mining engineer. Capt. Tregloan, an Englishman by birth, has had 40 years experience in mining in England and the United States, and is favourably known in mining circles as a practical miner and millman. It is claimed that the Association has facilities for obtaining information which often, in the case of mines offered for sale, would prevent the intending purchasers from incurring the expense of sending an expert either from Europe or engaging one in the United States. It is remarked that in many instances mining engineers have been sent from England, necessarily at great expense, to the United States to examine mining properties which proved to be of little or no value, and this cost might have been avoided by application to an office of this nature; and one of the primary objects of this Association is to prevent, as much as in its power, the introduction into Europe and other countries of mining properties of questionable character, recommended by persons of no practical mining experience or attainments, and consequently incapable as guides to such investments, or those, on the other hand, who, taking advantage of mining excitements, think it a good opportunity for the disposal of worthless properties. The experience of Capts. Richards and Tregloan will certainly give weight to their opinions, which will doubtless be equally appreciated in England and America.

GREAT WESTERN STEAMSHIP COMPANY (Limited).—On Saturday last there was launched from the building yard of Messrs. J. L. Thompson and Sons, Sunderland, a splendid iron steamship, the Dorset, the largest boat as yet belonging to Bristol. Her length between perpendiculars is 330 ft.; breadth extreme 39 ft.; depth to top of tanks 26 ft. She is estimated to carry 3500 tons. The bottom is built on the cellular principle, which adds greatly to the longitudinal strength, and all modern improvements have been introduced in the construction of the steamer. The engines, of 1500 indicated horse-power, are by Mr. George Clark, of Sunderland. This fine steamer is an addition to the fleet of the Great Western Steamship Line, and is intended to trade between Avonmouth and New York, and to commence running in July.—*Western Daily Press.*

HIGHEST AWARDS:—

PARIS EXHIBITION, 1878.
YORK EXHIBITION, 1879.

SALMON, BARNES, & CO.,

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ROANHEAD ROCK DRILL,

ALSO OF

ATKINSON'S PATENT

PARIS EXHIBITION 1878.

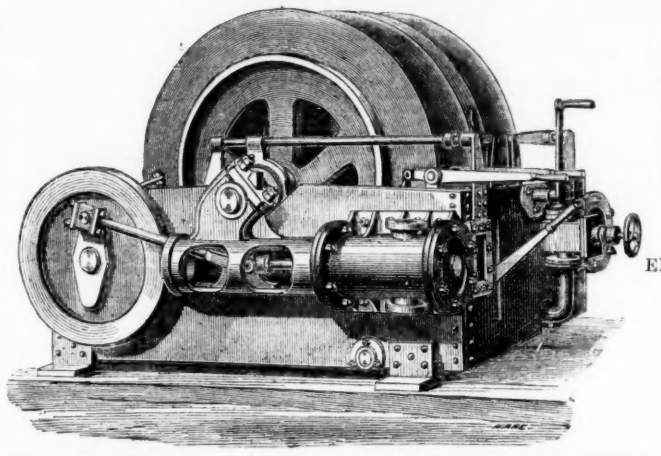
FEEDWATER HEATER.

FULL PARTICULARS AND PRICES ON APPLICATION.

Canal Head Foundry and Engineering Works, Ulverston,
LANCASHIRE.

STEVENS' PATENT UNDERGROUND WINDING ENGINE,

DESIGNED FOR USING COMPRESSED AIR OR STEAM.



SIMPLE, COMPACT, PORTABLE.

Silver Medal, Royal Cornwall Polytechnic Society, 1876.

No. 1 size, 7 in. single cylinder, with 2 ft. drums.
No. 2 size, 9 in. single cylinder, 2 ft. 6 in. drums.
A,— 6 in. double cylinder, with 2 ft. 3 n drums
B,— 8 in. „ „ 3 ft. 0 in drums.
C,—10 in. „ „ 3 ft. 6 in drums.
D,—12 in. „ „ 4 ft. 6 in drums.
E,—14 in. „ „ 5 ft. 0 in. drums.

MANUFACTURED BY

THE USKSIDE CO.,

ENGINEERS, MAKERS OF PUMPING AND WINDING MACHINERY, AND FORGINGS OF EVERY DESCRIPTION.

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[This Advertisement appears fortnightly.]

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SOLID DRAWN BRASS AND COPPER BOILER TUBES,

FOR LOCOMOTIVE OR MARINE BOILERS,
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MUNTZ'S METAL COMPANY (LIMITED),
FRENCH WALLS,
NEAR BIRMINGHAM.

INCREASED VALUE OF WATER-POWER.

MacADAM'S VARIABLE TURBINE.

This Wheel (which is now largely in use in England, Scotland, and Ireland) is the only one yet invented which gives proportionate power from both large and small quantities of water. It can be made for using a large winter supply, and yet work with equal efficiency through all variations of quantity down to a fifth, or even less if required. It is easily coupled to a steam-engine, and in this way always assists it by whatever amount of power the water is capable of giving, and therefore saves so much fuel.

This Turbine is applicable to all heights of fall. It works immersed in the tail-water, so that no part of the fall is lost, and the motion of the Wheel is not affected by floods or back-water.

References to places where it is at work will be given on application to—

MacADAM BROTHERS AND CO.,
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MAPS OF THE MINES, AND OF UTAH TERRITORY

FROISETH'S NEW AND REVISED MAP FOR 1875,—Size 40 by 56 inches, scale 8 miles to the inch. Handsomely engraved, coloured in counties, showing the Towns, Settlements, Rivers, Lakes, Railroads, Mining Districts, &c., throughout the Territory, and all the Government Surveys to date. Mounted on cloth, £2; half-mounted, £1 12s.; pocket form, £1.

Also, GENERAL MINING MAP OF UTAH, showing twenty-eight of the principal Mining Districts adjacent to Salt Lake City, and location of the most prominent mines. Price, pocket form, 6s.

Also, NEW MAP OF LITTLE AND BIG COTTONWOOD MINING DISTRICTS showing the location of over Four Hundred Mines and Tunnel Sites, together with the Mines Surveyed for United States Patent. Price, sheets, 6s.; pocket form, 8s.

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THE IRON AND COAL TRADES REVIEW.
The IRON AND COAL TRADES' REVIEW is extensively circulated amongst the Iron Producers, Manufacturers, and Consumers, Coalowners, &c., in all the iron and coal districts. It is, therefore, one of the leading organs for advertising every description of Iron Manufactures, Machinery, New Inventions, and all matters relating to the Iron Coal, Hardware, Engineering, and Metal Trades in general
Offices of the Review: 7, Westminster Chambers, S.W.
Remittances payable to W. T. Pringle.

CASSELL'S PUBLICATIONS.—"Science for All," part 43, contains the conclusion of the article on the Silkworm Disease; A Chemical Laboratory, by Dr. Lowe; How the Intensity and Duration of Sunshine are Measured, by Dr. Mann; the Zodiacal Light, by John I. Plummer, M.A.; a Piece of Amber, by F. W. Rudler, of the Museum of Practical Geology; and Life on the Surface of the Ocean, by H. N. Moseley, M.A., F.R.S. "The History of Protestantism," part 24, contains the chapters on the second and third Huguenot wars, the synod of La Rochelle, the promoters of the Bartholomew massacre, negociations of the Court with the Huguenots, the marriage of Henry of Navarre and Margaret of Valois, and preparations for the massacre; the massacre of St. Bartholomew, the resurrection of Huguenotism, the reign and death of Henry III. and Henry IV., and the edict of Nantes. "Knight's Dictionary of Mechanics" extends from picker to planing machine.

TRÜBNER'S LITERARY RECORD.—The new double number of Trübner's American, European, and Oriental Literary Record contains an interesting article on copyright in China, in which it is shown that the Chinese law has never conceived it necessary to specify that particular form of robbery which consists in despoiling a scholar of the fruit of his toil, any more than to name the products of husbandmen and artizans as under the protection of law, all alike being regarded as property by natural right. The literary intelligence contains an unusually large record of facts; and there are obituary notices of J. T. Fields, of Boston; Mariette Bey, and James T. Spedding. The lists of new American books and new importations, and of new oriental works, are given with the usual care and completeness.

ANGLO-POLISH LEXICON.—The richness and elegance of the Polish language have long been recognised by philologists, and it is well known Poland possesses a rich and varied literature, yet from different power of the consonants, as compared with that which they possess in languages of Latin origin, few Englishmen have acquired the power to appreciate the one or the other. A neat little Anglo-Polish lexicon, occupying only a couple of hundred pages, 5½ by 3¾ in., now nearly completed, by Dr. J. J. Baranowski, will enable the language to be freely conversed in with very little study, and read or written with comparative ease by Englishmen generally. The column containing the English words most commonly occurring in conversation and writing is followed by a column containing the exact Polish equivalent The third column gives the precise English pronunciation as an Englishman would represent the sound, whilst the fourth column shows the modification of termination to form the genitive of substantives, and the feminine or neuter of adjectives. The volume in the remaining 100 pages will give the principal grammatical rules; Anglo-Polish dialogues, appropriate to different kinds of conversation, and other details, which will give the student a comparative mastery of a language scarcely less musical than Italian. That it may be within the reach of all the price has been fixed at 10s. before the book is printed and 15s. after its publication. Dr. Baranowski's position as one of the secretaries of the Literary Society of the Friends of Poland will be a guarantee for the accuracy of the work, which is certainly deserving of every success.

TRAMWAYS.—A cheap form of tramway has been proposed by Mr. T. KENDALL, of Shipley, near Leeds, and as it is not secured by patent it can be freely used. The top portion of the rail is of ordinary construction, but that part which beds on the sleeper he makes of an angular form, so that pressure coming upon it tightens it upon the sleeper and prevents its removal out of position, requiring thereby less keying or otherwise fastening down than rails generally used. In his arrangement the rail is readily removed without disturbing the sleeper. The sleeper is grooved on its upper surface in an angular form to receive the rail. In order to prevent grooving or wearing away of that part of the road next to the rails, he provides what he calls "groove preventers." These are blocks formed of metal, and are dovetailed into flanges on each side of the sleeper, and take the place of an ordinary paving next to the rail. By being dovetailed as mentioned into the flanges of the sleeper, traffic may pass over without disturbing them. The dovetailed part is so arranged that it may be released without disturbing the sleeper. These blocks or groove preventers may be arranged in a diagonal or other convenien direction.

HOLLOWAY'S PILLS.—There is nothing in the whole "Materia Medica" which can surpass these medicaments for the certainty of their action in lumbago, sciataca, tic douloureux, and all flying or settled pains in the nerves, muscles, and sinews. Diseases of this nature originate in bad blood and depraved humours, and until these are corrected there can be no permanent cure. The ordinary remedies only afford temporary relief, and in the end the sufferer is as bad as ever. Holloway's Ointment penetrates the human system as salt penetrates meat, and the Pills greatly assist and accelerate its operation, by clearing away all obstructions, and giving tone to the system generally. The prophylactic virtues of Holloway's remedies stand unrivalled.

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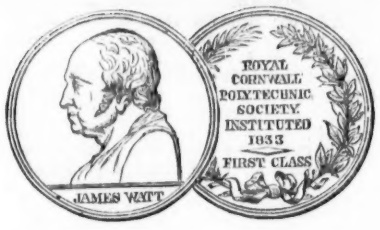

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IN USE IN CORNWALL, CALIFORNIA, BRAZIL, AUSTRALIA, AFRICA, AN INDIA. THE BEST MACHINE FOR PULVERISING

GOLD QUARTZ,

And other hard and refractory Materials. Particularly designed and adapted for transmission Abroad, and for Countries where Transport is a difficulty. Quickly and economically erected. Can be seen stamping Quartz near London.

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PARIS EXHIBITION, 1878.

GOLD AND SILVER MEDALS AWARDED for Steam-Engines & Boilers, also the Special Steam Pump, and Compound Pumping Engine.

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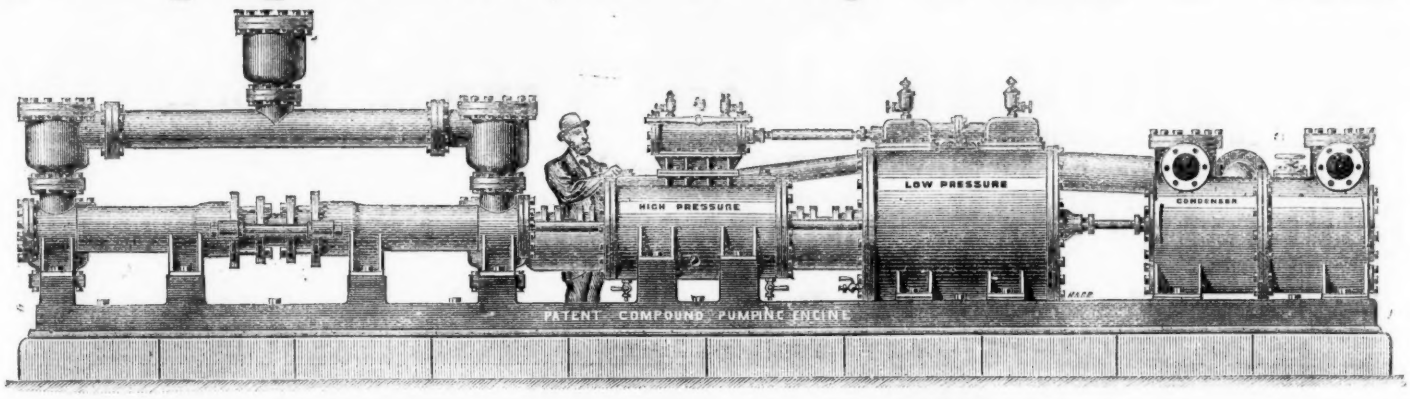
TANGYE'S DIRECT-ACTING
COMPOUND PUMPING ENGINE,

For use in Mines, Water Works, Sewage Works,

And all purposes where Economy of Fuel is essential.



TANGYE'S DIRECT-ACTING COMPOUND PUMPING ENGINE, WITH AIR-PUMP CONDENSER.

TANGYE'S COMPOUND PUMPING ENGINE COMBINES SIMPLICITY, CERTAINTY OF ACTION, GREAT ECONOMY IN WORKING, COMPACTNESS, AND MODERATE FIRST COST.

This Engine will be found the most simple and economical appliance for Mine Draining, Town Water Supply, and General Purposes of Pumping ever introduced, and as regards Mine Draining, the first cost is very moderate compared with the method of raising water from great depths by a series of 40 or 50 fm. lifts. No costly engine-houses or massive foundations, no repetition of plunger lifts, ponderous connecting rods, or complication of pitwork, are required, while they allow a clear shaft for hauling purposes. In this Engine the economical advantages resulting from the expansion and condensation of steam are very simply and effectively obtained. The steam after leaving the high-pressure cylinder is received into and expanded in the low-pressure cylinder, and is thus used twice over before being exhausted into the condenser or atmosphere.

The following first-class Testimonials will bear evidence as to the efficiency and economy of the Engine:—

TESTIMONIALS OF TANGYE'S COMPOUND PUMPING ENGINE.

21' Newcastle and Gateshead Water Company, Newcastle-on-Tyne, Oct. 20, 1879
36 × 10" × 48" COMPOUND CONDENSING STEAM PUMPING ENGINE.
Messrs. Tangye Brothers.

GENTLEMEN,—In reply to your enquiry as to the efficiency of the two pairs of Compound Condensing Engines recently erected by you for this company at our Gateshead Pumping Station, I have great pleasure in informing you that they have far surpassed my expectations, being capable of pumping 50 per cent. more water than the quantity contracted for; and by a series of experiments I find they work as economically as any other engine of the compound type, and will compare favourably with any other class of pumping engine. By the simplicity of their arrangement and superior workmanship they require very little attendance and repairs, and the pumps are quite noiseless. A short time ago I had them tried upon air by suddenly shutting off the column, and found they did not run away, thus showing the perfect controlling or governing power of the Floyd's Improved Steam-moved Reversing Vale. I will thank you to forward the other two pairs you have in hand for our Benwell Pumping Station. Yours respectfully,
(Signed) JOHN R FORSTER, Engineer.

The Chesterfield and Boythorpe Colliery Company (Limited),
21" Registered Office, Boythorpe, near Chesterfield, Oct. 1, 1879.
36 × 12" × 48" DOUBLE RAM COMPOUND CONDENSING STEAM PUMPING ENGINES
Messrs. Tangye Brothers. Supplied in January, 1878.

GENTLEMEN,—Referring to the above, which we have now had working continuously night and day for the last 12 months, we are glad to say that it is giving us every satisfaction. It is fixed about 400 feet below the surface, the steam being taken down to it at pressure of 45 lbs. per square inch. We can work the pump without any difficulty at 28 strokes per minute=224 ft. piston speed. The pumping power is enormous. The vacuum in the condenser being from 11½ to 13 lbs. The pump is easily started, and works well and regularly. The amount of steam taken being much less than we anticipated. We consider the economy in working very satisfactory indeed. The desire for power and economy at the present day will certainly bring this pump into great requisition. Yours truly,
(Signed M. STRAW, Manager.

SIZES AND PARTICULARS.

Diameter of High-pressure Cylinder.....In.	8		8	10	10	10	10	12	12	12	12	14	14	14	14
Ditto of Low-pressure Cylinder .....In.	14		14	18	18	18	18	21	21	21	21	24	24	24	24
Ditto of Water Cylinder .....In.	4		6	5	6	7	8	6	7	8	10	7	8	10	12
Length of stroke .....In.	24	24	24	24	24	24	24	24	24	24	24	36	36	36	36
Gallons per hour approximate	3900	6100	8800	6100	8800	12,000	15,650	8,800	12,000	15,650	24,450	12,000	15,650	24,450	35,225
Height in feet water can be raised with 40 lbs. pressure per square inch in cylinder ..... Non-condensing...	360	330	160	360	250	184	140	360	264	202	130	360	275	175	122
Ditto ditto ditto—with Holman's Condenser...	480	307	213	480	333	245	187	480	352	269	173	480	367	234	162
Ditto ditto ditto—with Air-pump Condenser...	600	384	267	600	417	306	335	600	440	337	216	600	459	203	203

CONTINUED.

Diameter of High-pressure Cylinder .....In.	16	16	16	16	18	18	18	18	21	21	21	24	24	24	30	30
Ditto of Low-pressure Cylinder .....In.	28	28	28	28	32	32	32	32	36	36	36	42	42	42	52	52
Ditto of Water Cylinder .....In.	8	10	12	14	8	10	12	14	10	12	14	10	12	14	12	14
Length of stroke .....In.	36	36	36	36	48	48	48	48	48	48	48	48	48	48	48	48
Gallons per hour approximate	15,650	24,450	35,225	47,950	13,650	24,450	35,225	47,950	24,450	35,225	47,950	24,450	35,225	47,950	35,225	47,950
Height in feet water can be raised with 40 lbs. pressure per square inch in cylinder ..... Non-condensing..	360	230	160	118	456	292	202	149	397	276	202	518	360	264	562	41
Ditto ditto ditto—with Holman's Condenser...	480	307	213	154	603	389	269	198	528	363	269	691	480	352	750	550
Ditto ditto ditto—with Air-pump Condenser...	600	384	267	191	750	486	337	248	660	450	337	864	600	440	937	689

PRICES GIVEN ON RECEIPT OF REQUIREMENTS.

Any number of these Engines can be placed side by side, to work in conjunction or separately as desired, thereby multiplying the work of one Pump to any extent.

NORTHERN DEPOT:—TANGYE BROTHERS, ST. NICHOLAS BUILDINGS NEWCASTLE-ON-TYNE.

THE GRAND PRIZE, THE TRIPLE AWARD.

Gold Medal, Silver Medal, and Honourable Mention awarded at the Paris Exhibition, in competition with all the World,

FOR MY LATEST PATENTED STONE BREAKERS AND ORE CRUSHERS.

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H. R. MARSDEN,

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ORIGINAL PATENTEE AND SOLE MAKER OF **BLAKE-MARSDEN**

Improved Patent Stone Breakers & Ore Crushers.

New Patent Reversible Jaws, in Sections with Patent Faced Backs.

NEW PATENT ADJUSTABLE TOGGLES.

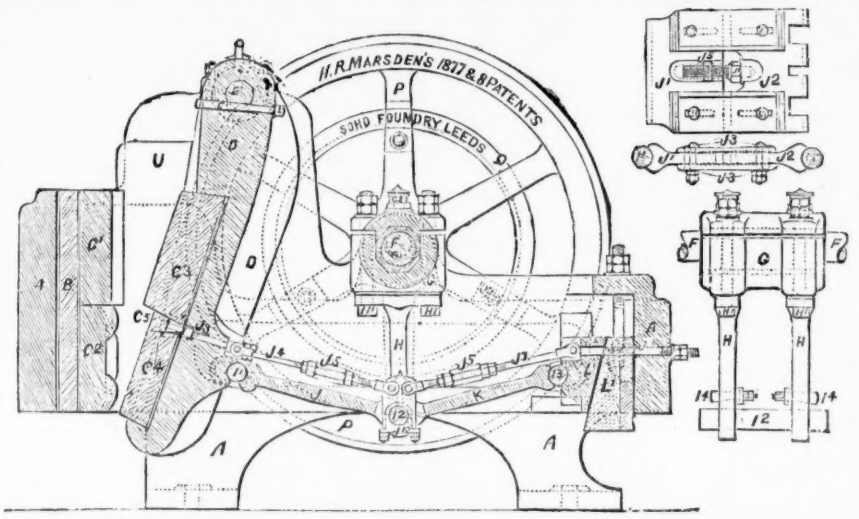
OVER **2750** IN USE.

NEW PATENT WROUGHT-IRON CONNECTING ROD.

New Patent Draw-back Motion.

NEW PATENT STEEL TOGGLE BEARINGS.

60 PRIZE MEDALS.



8, Queen-street-place, London, E.C.

DEAR SIR,—We have adopted your Stone Breakers at many of the mines under our management, and are pleased to be able to state that they have in all cases given the greatest satisfaction.

We are, yours faithfully,
JOHN TAYLOR AND SONS.

H. R. Marsden, Esq.,
Soho Foundry, Meadow-lane, Leeds.

St. John del Rey Mining Company (Limited).

A SAVING OF FIFTY-FIVE HANDS BY THE USE OF ONE MEDIUM-SIZED MACHINE.

BLAKE'S STONE BREAKER.—Statement made by the Managing Director of the St. John del Rey Mining Company, Mr. John Hockin, with regard to six months' practical working of Blake's Stone Breaker, affording facility for judging of the relative economy of machine and hand labour in this kind of work, and also of the cost of getting the Stone Breaker to work in difficult places. The price paid to Mr. Marsden for the machine referred to by Mr. Hockin was £180, and adding to this the cost of engine, carriage, and fixing, the aggregate cost to the company of the Breaker in working order was £500. By this outlay the company is enabled to dispense with the labour of 55 people, the value of which is £600 per annum. The cost of working the machine could not be more than the wages of about five men (the machine requires but one man to feed it, so that the rest would be for engineer, fuel, oil, &c.), and allowing for interest on outlay and for renewal when necessary, the saving must be enormous.—*Mining Journal.*

ALL BEARINGS are renewable, and made of H.R.M.'s Patent Compound ANTIFRICTION METAL.

CATALOGUES, TESTIMONIALS, &c.

H. R. MARSDEN, SOHO FOUNDRY, LEEDS.

Patentee of the New Patent Special Fine Crusher, for reducing Gold Quartz, Lead Ore, and all kinds of Materials to an impalpable powder. Awarded the FIRST SILVER MEDAL by the Cornwall Mining Institute. Particulars of results, &c., on application.

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STEAM PUMPS

FOR

COLLIERY PURPOSES,

Specially adapted for forcing Water any height;

ALSO, FOR

SINKING, FEEDING BOILERS AND STEAM FIRE ENGINES,

Of which he has made over **8000.**

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Works: Oldfield Road, Salford, Manchester.

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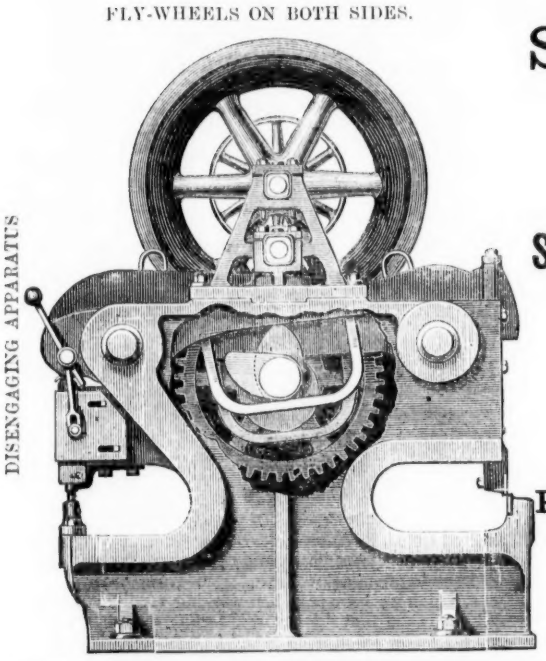

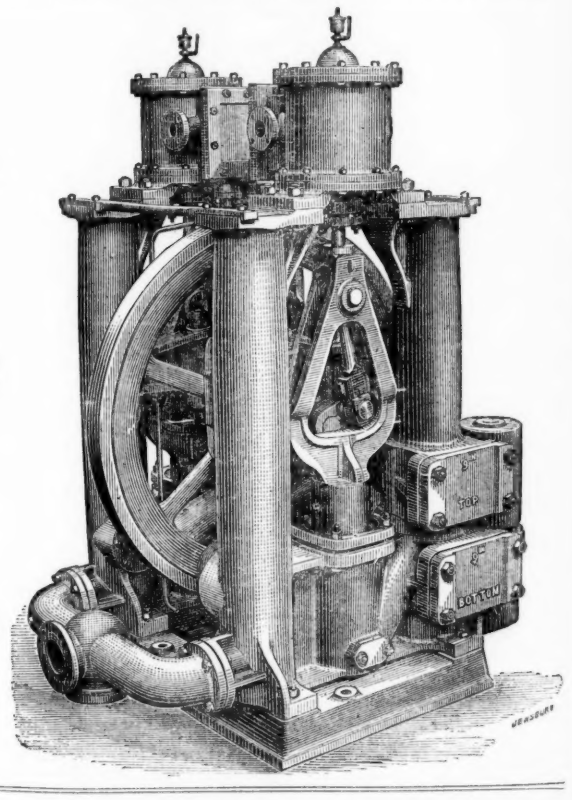

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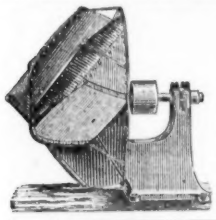

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